[MS-ADA3]:

Active Directory Schema Attributes N-Z

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1 Introduction

Active Directory Schema Attributes N-Z contains a partial list of the objects that exist in the Active Directory schema; it contains schema objects of type "attribute" whose names start with the letters N through Z. Active Directory and all associated terms and concepts are described in the document titled "Active Directory Technical Specification", which has the following normative reference:

[MS-ADTS] Microsoft Corporation, "Active Directory Technical Specification".

Note This document is not intended to stand on its own; it is intended to act as an appendix to the Active Directory Technical Specification, as specified in the normative reference shown above. For details about the Active Directory schema, see [MS-ADTS] section 3.1.1.2 (Active Directory Schema).

Note The object definitions in this document are also available for download in LDAP Data Interchange Format (LDIF) at the following location: [MSFT-ADSCHEMA].

1.1 References

[MS-ADA2] Microsoft Corporation, "Active Directory Schema Attributes M".

[MS-ADOD] Microsoft Corporation, "Active Directory Protocols Overview".

[MS-ADSC] Microsoft Corporation, "Active Directory Schema Classes".

[MS-ADTS] Microsoft Corporation, "Active Directory Technical Specification".

[MS-CBCP] Microsoft Corporation, "Callback Control Protocol".

[MS-DRSR] Microsoft Corporation, "Directory Replication Service (DRS) Remote Protocol".

[MS-DTYP] Microsoft Corporation, "Windows Data Types".

[MS-SAMR] Microsoft Corporation, "Security Account Manager (SAM) Remote Protocol (Client-to-Server)".

[MS-TSTS] Microsoft Corporation, "Terminal Services Terminal Server Runtime Interface Protocol".

[MSDN-ExtUserIntDirObj] Microsoft Corporation, "Extending the User Interface for Directory Objects", http://msdn.microsoft.com/en-us/library/ms676902.aspx

[MSDN-PACKAGE-FLAGS] Microsoft Corporation, "Package-Flags", http://msdn.microsoft.com/en-us/library/ms679099.aspx

[MSFT-ADSCHEMA] Microsoft Corporation, "Combined Active Directory Schema Classes and Attributes for Windows Server", February 2011, http://www.microsoft.com/downloads/en/details.aspx?displaylang=en&FamilyID=da2fc73a-3d35-484c-9bea-f023dcba7275

[RFC1274] Barker, P. and Kille, S., "The COSINE and Internet X.500 Schema", RFC 1274, November 1991, http://www.ietf.org/rfc/rfc1274.txt

[RFC2251] Wahl, M., Howes, T., and Kille, S., "Lightweight Directory Access Protocol (v3)", RFC 2251, December 1997, http://www.ietf.org/rfc/rfc2251.txt

[RFC2307] Howard, L., "An Approach for Using LDAP as a Network Information Service", RFC 2307, March 1998, http://www.ietf.org/rfc/rfc2307.txt

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[RFC2849] Good, G., "The LDAP Data Interchange Format (LDIF) - Technical Specification", RFC 2849, June 2000, http://www.ietf.org/rfc/rfc2849.txt

[RFC3280] Housley, R., Polk, W., Ford, W., and Solo, D., "Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile", RFC 3280, April 2002, http://www.ietf.org/rfc/rfc3280.txt

[RFC804] Drafting Group on Draft Recommendation T.4, "CCITT Draft Recommendation T.4 - STANDARDIZATION OF GROUP 3 FACSIMILE APPARATUS FOR DOCUMENT TRANSMISSION", RFC 804, http://www.faqs.org/rfcs/rfc804.html

[RFC822] Crocker, D.H., "Standard for ARPA Internet Text Messages", STD 11, RFC 822, August 1982, http://www.ietf.org/rfc/rfc0822.txt

[X121] ITU-T, "Public data networks - Network aspects - International numbering plan for public data networks", Recommendation X.121, October 2000, http://www.itu.int/rec/T-REC-X.121/en

[X400] ITU-T, "Message handling systems - Message handling system and service overview", Recommendation F.400/X.400, June 1999, http://www.itu.int/rec/T-REC-X.400/en

[X420] ITU-T, "X.420 - Information technology - Message Handling Systems (MHS): Interpersonal Messaging System", Recommendation X.420 June 1999, http://www.itu.int/rec/T-REC-X.420-199906-I/en

[X500] ITU-T, "Information Technology - Open Systems Interconnection - The Directory: Overview of Concepts, Models and Services", Recommendation X.500, August 2005, http://www.itu.int/rec/T-REC-X.500-200508-S/en

Note There is a charge to download the specification.

[X509] ITU-T, "Information Technology - Open Systems Interconnection - The Directory: Public-Key and Attribute Certificate Frameworks", Recommendation X.509, August 2005, http://www.itu.int/rec/T-REC-X.509/en

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2 Attributes

The following sections specify attributes in the Active Directory schema whose names start with the letters N through Z.

These sections normatively specify the schema definition of each attribute and version-specific behavior of those schema definitions (such as when the attribute was added to the schema). Additionally, as an aid to the reader some of the sections include informative notes about how the attribute can be used.

Note Lines of text in the attribute definitions that are excessively long have been "folded" in accordance with [RFC2849] Note 2.

2.1 Attribute name

This attribute specifies the relative distinguished name of an object. The relative distinguished name is the part of the object name that is an attribute of the object itself. Also known as the naming attribute. See the glossary entry for distinguished name in [MS-ADTS] section 1.1.

```
cn: RDN
ldapDisplayName: name
attributeId: 1.2.840.113556.1.4.1
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a0e-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE| fANR | fATTINDEX
rangeLower: 1
rangeUpper: 255
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 33282
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server operating system, Windows Server 2003 operating system, Windows Server 2003 R2 operating system, Windows Server 2008 operating system, Windows Server 2008 R2 operating system, Windows Server 2012 operating system, Windows Server 2012 R2 operating system, and Windows Server 2016 operating system.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.2 Attribute nameServiceFlags

This attribute specifies the configuration flags for remote procedure call (RPC) name service.

```
cn: Name-Service-Flags
ldapDisplayName: nameServiceFlags
attributeId: 1.2.840.113556.1.4.753
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 80212840-4bdc-11d1-a9c4-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.3 Attribute nCName

This attribute specifies the distinguished name of the naming context (NC) for the object. See [MS-ADTS] section 6.1 for more details on usage.

```
cn: NC-Name
ldapDisplayName: nCName
attributeId: 1.2.840.113556.1.2.16
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: bf9679d6-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.4 Attribute nETBIOSName

This attribute specifies the name of the object to be used over NetBIOS.

```
cn: NETBIOS-Name
ldapDisplayName: nETBIOSName
attributeId: 1.2.840.113556.1.4.87
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679d8-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 1
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.5 Attribute netbootAllowNewClients

This attribute is reserved for internal use.

```
cn: netboot-Allow-New-Clients
ldapDisplayName: netbootAllowNewClients
attributeId: 1.2.840.113556.1.4.849
```


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```
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 07383076-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.6 Attribute netbootAnswerOnlyValidClients

This attribute specifies whether the server answers all computers or only pre-staged client computers.

```
cn: netboot-Answer-Only-Valid-Clients
ldapDisplayName: netbootAnswerOnlyValidClients
attributeId: 1.2.840.113556.1.4.854
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 0738307b-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.7 Attribute netbootAnswerRequests

This attribute enables the RIS server to accept any RIS requests.

```
cn: netboot-Answer-Requests
ldapDisplayName: netbootAnswerRequests
attributeId: 1.2.840.113556.1.4.853
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 0738307a-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.8 Attribute netbootCurrentClientCount

The netboot-Current-Client-Count attribute is reserved for internal use.

```
cn: netboot-Current-Client-Count
ldapDisplayName: netbootCurrentClientCount
attributeId: 1.2.840.113556.1.4.852
```


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```
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 07383079-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.9 Attribute netbootDUID

This attribute is used to store a DHCPv6 DUID device ID.

```
cn: Netboot-DUID
ldapDisplayName: netbootDUID
attributeId: 1.2.840.113556.1.4.2234
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 532570bd-3d77-424f-822f-0d636dc6daad
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 2
rangeUpper: 128
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.10 Attribute netbootGUID

This attribute specifies the diskless boot: Machine on-board GUID. Corresponds to the computer's network card MAC address.

```
cn: Netboot-GUID
ldapDisplayName: netbootGUID
attributeId: 1.2.840.113556.1.4.359
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 3e978921-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.11 Attribute netbootInitialization

This attribute specifies the default boot path for diskless boot.

```
cn: Netboot-Initialization
ldapDisplayName: netbootInitialization
attributeId: 1.2.840.113556.1.4.358
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3e978920-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.12 Attribute netbootIntelliMirrorOSes

The netboot-IntelliMirror-OSes attribute is reserved for internal use.

```
cn: netboot-IntelliMirror-OSes
ldapDisplayName: netbootIntelliMirrorOSes
attributeId: 1.2.840.113556.1.4.857
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0738307e-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.13 Attribute netbootLimitClients

The netboot-Limit-Clients attribute is reserved for internal use.

```
cn: netboot-Limit-Clients
ldapDisplayName: netbootLimitClients
attributeId: 1.2.840.113556.1.4.850
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 07383077-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.14 Attribute netbootLocallyInstalledOSes

The netboot-Locally-Installed-OSes attribute is reserved for internal use.

```
cn: netboot-Locally-Installed-OSes
ldapDisplayName: netbootLocallyInstalledOSes
attributeId: 1.2.840.113556.1.4.859
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 07383080-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.15 Attribute netbootMachineFilePath

This attribute specifies the server that answers the client. In Windows Server 2003, it can indicate the startrom that the client gets.

```
cn: Netboot-Machine-File-Path
ldapDisplayName: netbootMachineFilePath
attributeId: 1.2.840.113556.1.4.361
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3e978923-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.16 Attribute netbootMaxClients

The netboot-Max-Clients attribute is reserved for internal use.

```
cn: netboot-Max-Clients
ldapDisplayName: netbootMaxClients
attributeId: 1.2.840.113556.1.4.851
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 07383078-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.17 Attribute netbootMirrorDataFile

The Netboot-Mirror-Data-File attribute is reserved for internal use.

```
cn: Netboot-Mirror-Data-File
ldapDisplayName: netbootMirrorDataFile
attributeId: 1.2.840.113556.1.4.1241
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 2df90d85-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.18 Attribute netbootNewMachineNamingPolicy

This attribute specifies the naming scheme that new client computer accounts will use.

```
cn: netboot-New-Machine-Naming-Policy
ldapDisplayName: netbootNewMachineNamingPolicy
attributeId: 1.2.840.113556.1.4.855
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0738307c-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.19 Attribute netbootNewMachineOU

This attribute specifies where the new client computer account will be created.

```
cn: netboot-New-Machine-OU
ldapDisplayName: netbootNewMachineOU
attributeId: 1.2.840.113556.1.4.856
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 0738307d-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.20 Attribute netbootSCPBL

This attribute is the back link attribute of netbootServer and contains a list of service connection points that reference this netboot server.

```
cn: netboot-SCP-BL
ldapDisplayName: netbootSCPBL
attributeId: 1.2.840.113556.1.4.864
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 07383082-91df-11d1-aebc-0000f80367c1
systemOnly: TRUE
searchFlags: 0
linkID: 101
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently:

```
isSingleValued: TRUE
```

2.21 Attribute netbootServer

This attribute specifies the distinguished name of a netboot server.

```
cn: netboot-Server
ldapDisplayName: netbootServer
attributeId: 1.2.840.113556.1.4.860
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 07383081-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 100
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.22 Attribute netbootSIFFile

The Netboot-SIF-File attribute is reserved for internal use.

```
cn: Netboot-SIF-File
ldapDisplayName: netbootSIFFile
attributeId: 1.2.840.113556.1.4.1240
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 2df90d84-009f-11d2-aa4c-00c04fd7d83a
systemOnly: FALSE
```


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```
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.23 Attribute netbootTools

The netboot-Tools attribute is reserved for internal use.

```
cn: netboot-Tools
ldapDisplayName: netbootTools
attributeId: 1.2.840.113556.1.4.858
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0738307f-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.24 Attribute networkAddress

This attribute specifies the TCP/IP address for a network segment, which is also called the subnet address.

```
cn: Network-Address
ldapDisplayName: networkAddress
attributeId: 1.2.840.113556.1.2.459
attributeSyntax: 2.5.5.4
omSyntax: 20
isSingleValued: FALSE
schemaIdGuid: bf9679d9-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 256
mapiID: 33136
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.25 Attribute nextLevelStore

This attribute specifies the next class store to search.

```
cn: Next-Level-Store
ldapDisplayName: nextLevelStore
attributeId: 1.2.840.113556.1.4.214
attributeSyntax: 2.5.5.1
omSyntax: 127
```


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```
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: bf9679da-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.26 Attribute nextRid

This attribute specifies the **Next Rid** field used by the mixed mode allocator. See [MS-SAMR] and [MS-DRSR] for more information on how RID pools are defined.

```
cn: Next-Rid
ldapDisplayName: nextRid
attributeId: 1.2.840.113556.1.4.88
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf9679db-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.27 Attribute nisMapEntry

This attribute specifies one map entry of a non-standard map.

```
cn: NisMapEntry
ldapDisplayName: nisMapEntry
attributeId: 1.3.6.1.1.1.1.27
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 4a95216e-fcc0-402e-b57f-5971626148a9
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.28 Attribute nisMapName

The attribute contains the name of the map to which the object belongs.

```
cn: NisMapName
```


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```
ldapDisplayName: nisMapName
attributeId: 1.3.6.1.1.1.1.26
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: 969d3c79-0e9a-4d95-b0ac-bdde7ff8f3a1
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.29 Attribute nisNetgroupTriple

This attribute specifies one entry from a netgroup map.

```
cn: NisNetgroupTriple
ldapDisplayName: nisNetgroupTriple
attributeId: 1.3.6.1.1.1.1.14
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: a8032e74-30ef-4ff5-affc-0fc217783fec
systemOnly: FALSE
searchFlags: 0
rangeUpper: 153600
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.30 Attribute nonSecurityMember

This attribute specifies non-security members of a group. It is used for Microsoft Exchange Server distribution lists.

```
cn: Non-Security-Member
ldapDisplayName: nonSecurityMember
attributeId: 1.2.840.113556.1.4.530
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 52458018-ca6a-11d0-afff-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 50
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.31 Attribute nonSecurityMemberBL

This attribute is the back link attribute of nonSecurityMember and contains the list of nonsecurity members for an Exchange Server distribution list.

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```
cn: Non-Security-Member-BL
ldapDisplayName: nonSecurityMemberBL
attributeId: 1.2.840.113556.1.4.531
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 52458019-ca6a-11d0-afff-0000f80367c1
systemOnly: TRUE
searchFlags: 0
linkID: 51
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.32 Attribute notes

This attribute specifies a free text field for general-purpose notes on an object.

```
cn: Additional-Information
ldapDisplayName: notes
attributeId: 1.2.840.113556.1.4.265
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 6d05fb41-246b-11d0-a9c8-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeUpper: 32768
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

On Windows 2000 Server, rangeUpper is not defined.

2.33 Attribute notificationList

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

```
cn: Notification-List
ldapDisplayName: notificationList
attributeId: 1.2.840.113556.1.4.303
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 19195a56-6da0-11d0-afd3-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.34 Attribute nTGroupMembers

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

```
cn: NT-Group-Members
ldapDisplayName: nTGroupMembers
attributeId: 1.2.840.113556.1.4.89
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf9679df-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.35 Attribute nTMixedDomain

This attribute specifies whether the domain is in native mode or mixed mode. This attribute is found in the domainDNS (head) object for the domain. For more information on how AD uses this attribute, refer to [MS-ADTS] section 6.1.4.1.

```
cn: NT-Mixed-Domain
ldapDisplayName: nTMixedDomain
attributeId: 1.2.840.113556.1.4.357
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 3e97891f-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.36 Attribute ntPwdHistory

This attribute specifies the password history of the user in Windows NT operating system one-way format (OWF). Windows 2000 operating system uses the Windows NT OWF.

For more information about usage, refer to [MS-SAMR] sections 3.1.1.6 and 3.1.1.9.1.

```
cn: Nt-Pwd-History
ldapDisplayName: ntPwdHistory
attributeId: 1.2.840.113556.1.4.94
```


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```
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf9679e2-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.37 Attribute nTSecurityDescriptor

This attribute specifies the Windows NT security descriptor for an object. For more information about how Active Directory uses this attribute, refer to [MS-ADTS] section 5.1.

```
cn: NT-Security-Descriptor
ldapDisplayName: nTSecurityDescriptor
attributeId: 1.2.840.113556.1.2.281
attributeSyntax: 2.5.5.15
omSyntax: 66
isSingleValued: TRUE
schemaIdGuid: bf9679e3-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
rangeLower: 0
rangeUpper: 132096
mapiID: 32787
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT | FLAG ATTR IS OPERATIONAL |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently:

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
```

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.38 Attribute o

This attribute specifies the name of the company or organization.

```
cn: Organization-Name
ldapDisplayName: o
attributeId: 2.5.4.10
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
```


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```
schemaIdGuid: bf9679ef-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 33025
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.39 Attribute objectCategory

This attribute specifies an object class name that is used to group objects of this or derived classes. Every object in Active Directory has this attribute. See [MS-ADTS] section 3.1.1.3.1.3.5 for more information about how Active Directory uses this attribute in searches.

```
cn: Object-Category
ldapDisplayName: objectCategory
attributeId: 1.2.840.113556.1.4.782
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 26d97369-6070-11d1-a9c6-0000f80367c1
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.40 Attribute objectClass

This attribute specifies the list of classes of which this object is an instance. See [MS-ADTS] section 3.1.1.2.4.3 for information about how this attribute is used.

```
cn: Object-Class
ldapDisplayName: objectClass
attributeId: 2.5.4.0
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf9679e5-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fATTINDEX | fPRESERVEONDELETE
```


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```
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Note If the DC functional level of the DC that initially created the forest is greater than or equal to DS_BEHAVIOR_WIN2008, then the fATTINDEX bit is present by default in the searchFlags attribute of the objectClass attribute; otherwise it is not present by default.

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.41 Attribute objectClassCategory

This attribute specifies the class type, such as abstract, auxiliary, or structured. See [MS-ADTS] for how this attribute is used by the Active Directory service.

```
cn: Object-Class-Category
ldapDisplayName: objectClassCategory
attributeId: 1.2.840.113556.1.2.370
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: TRUE
schemaIdGuid: bf9679e6-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
rangeLower: 0
rangeUpper: 3
mapiID: 33014
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.42 Attribute objectClasses

This attribute specifies a multivalued property containing strings that represent each class in the schema. Each value contains the governsID, lDAPDisplayName, mustContain, mayContain, and so on. For more information, refer to [MS-ADTS] section 3.1.1.3.1.1.1.

```
cn: Object-Classes
ldapDisplayName: objectClasses
attributeId: 2.5.21.6
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 9a7ad94b-ca53-11d1-bbd0-0080c76670c0
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT | FLAG ATTR IS CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
```


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```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.43 Attribute objectCount

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

```
cn: Object-Count
ldapDisplayName: objectCount
attributeId: 1.2.840.113556.1.4.506
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 34aaa216-b699-11d0-afee-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.44 Attribute objectGUID

This attribute specifies the unique identifier for an object. The GUID data type is defined in [MS-DTYP] section 2.3.4. GUID usage by the Active Directory service is defined in [MS-ADTS], in particular in section 3.1.1.1.3.

```
cn: Object-Guid
ldapDisplayName: objectGUID
attributeId: 1.2.840.113556.1.4.2
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf9679e7-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE | fATTINDEX
rangeLower: 16
rangeUpper: 16
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 35949
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG ATTR REQ PARTIAL SET MEMBER | FLAG ATTR NOT REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.45 Attribute objectSid

This attribute specifies a binary value that specifies the security identifier (SID) of a security principal object. The SID is a unique value used to identify security principal objects. For more information on the SID data type, refer to [MS-DTYP] section 2.4.2. SID usage is also discussed in [MS-ADTS], in particular in section 3.1.1.1.3.

Because this is an attribute of String(SID) syntax, an application writing to this attribute via the LDAP protocol can specify a value for this attribute as a valid SDDL SID string, as specified in [MS-ADTS] section 3.1.1.3.1.2.5. The directory service will convert that value to its binary value equivalent.

```
cn: Object-Sid
ldapDisplayName: objectSid
attributeId: 1.2.840.113556.1.4.146
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf9679e8-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE | fATTINDEX
rangeLower: 0
rangeUpper: 28
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
mapiID: 32807
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently:

```
systemOnly: FALSE
```

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.46 Attribute objectVersion

This attribute specifies a generic store for a version number for the object. Active Directory uses this attribute for a few operations. Refer to [MS-ADTS] section 3.1.1.2.1 for more information.

```
cn: Object-Version
ldapDisplayName: objectVersion
attributeId: 1.2.840.113556.1.2.76
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 16775848-47f3-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
mapiID: 33015
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.47 Attribute oEMInformation

This attribute specifies OEM information.

```
cn: OEM-Information
ldapDisplayName: oEMInformation
attributeId: 1.2.840.113556.1.4.151
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679ea-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.48 Attribute oMObjectClass

This attribute specifies the unique object ID (OID) for the attribute or class. See [MS-ADTS] section 3.1.1.2.2.2, "LDAP Representation", for information on how this object is used by the Active Directory service.

```
cn: OM-Object-Class
ldapDisplayName: oMObjectClass
attributeId: 1.2.840.113556.1.2.218
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf9679ec-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 33021
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.49 Attribute oMSyntax

Used as part of specifying the syntax of an attribute. See [MS-ADTS] section 3.1.1.2.2.2, LDAP Representation, for information on how this object is used by the Active Directory service.

```
cn: OM-Syntax
ldapDisplayName: oMSyntax
attributeId: 1.2.840.113556.1.2.231
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf9679ed-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
mapiID: 33022
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.50 Attribute oMTGuid

This attribute specifies the unique identifier for a Link-Track-Object-Move table entry.

```
cn: OMT-Guid
ldapDisplayName: oMTGuid
attributeId: 1.2.840.113556.1.4.505
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: ddac0cf3-af8f-11d0-afeb-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.51 Attribute oMTIndxGuid

This attribute specifies the index identifier for a Link-Track-Object-Move table entry.

```
cn: OMT-Indx-Guid
ldapDisplayName: oMTIndxGuid
attributeId: 1.2.840.113556.1.4.333
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 1f0075fa-7e40-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 16
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.52 Attribute oncRpcNumber

This attribute specifies a part of the RPC map and stores the RPC number for UNIX RPCs.

```
cn: OncRpcNumber
ldapDisplayName: oncRpcNumber
attributeId: 1.3.6.1.1.1.1.18
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 966825f5-01d9-4a5c-a011-d15ae84efa55
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.53 Attribute operatingSystem

This attribute specifies the operating system name (for example, Windows NT).

```
cn: Operating-System
ldapDisplayName: operatingSystem
attributeId: 1.2.840.113556.1.4.363
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3e978925-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.54 Attribute operatingSystemHotfix

This attribute specifies the hotfix level of the operating system.

```
cn: Operating-System-Hotfix
ldapDisplayName: operatingSystemHotfix
attributeId: 1.2.840.113556.1.4.415
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bd951b3c-9c96-11d0-afdd-00c04fd930c9
systemOnly: FALSE
```


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```
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.55 Attribute operatingSystemServicePack

This attribute specifies the operating system service pack ID string (for example, SP3).

```
cn: Operating-System-Service-Pack
ldapDisplayName: operatingSystemServicePack
attributeId: 1.2.840.113556.1.4.365
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3e978927-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.56 Attribute operatingSystemVersion

This attribute specifies the operating system version string (for example, 4.0).

```
cn: Operating-System-Version
ldapDisplayName: operatingSystemVersion
attributeId: 1.2.840.113556.1.4.364
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 3e978926-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.57 Attribute operatorCount

The Operator-Count attribute is part of the mandatory User\Group properties (see [MS-ADTS] for more information).

```
cn: Operator-Count
```


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```
ldapDisplayName: operatorCount
attributeId: 1.2.840.113556.1.4.144
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf9679ee-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.58 Attribute optionDescription

This attribute specifies a description of an option that is set on the DHCP server.

```
cn: Option-Description
ldapDisplayName: optionDescription
attributeId: 1.2.840.113556.1.4.712
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 963d274d-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.59 Attribute options

This attribute specifies a bit field, where the meaning of the bits varies from objectClass to objectClass. It can occur on Inter-Site-Transport, NTDS-Connection, NTDS-DSA, NTDS-Site-Settings, and Site-Link objects. See [MS-DRSR] and [MS-ADTS] more for information.

```
cn: Options
ldapDisplayName: options
attributeId: 1.2.840.113556.1.4.307
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 19195a53-6da0-11d0-afd3-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.60 Attribute optionsLocation

This attribute specifies the options location for the DHCP server, and contains the distinguished name (DN) for alternate sites that contain the options information.

```
cn: Options-Location
ldapDisplayName: optionsLocation
attributeId: 1.2.840.113556.1.4.713
attributeSyntax: 2.5.5.5
omSyntax: 19
isSingleValued: FALSE
schemaIdGuid: 963d274e-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.61 Attribute organizationalStatus

The organizationalStatus attribute specifies a category by which a person is often referred to in an organization. This attribute is part of the X.500 schema, as described in [RFC1274].

```
cn: organizationalStatus
ldapDisplayName: organizationalStatus
attributeId: 0.9.2342.19200300.100.1.45
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 28596019-7349-4d2f-adff-5a629961f942
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.62 Attribute originalDisplayTable

This attribute specifies the MAPI (original) display table for an address entry.

```
cn: Original-Display-Table
ldapDisplayName: originalDisplayTable
attributeId: 1.2.840.113556.1.2.445
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 5fd424ce-1262-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 32768
mapiID: 33027
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.63 Attribute originalDisplayTableMSDOS

This attribute specifies the MAPI (original) display table for an MS-DOS address entry.

```
cn: Original-Display-Table-MSDOS
ldapDisplayName: originalDisplayTableMSDOS
attributeId: 1.2.840.113556.1.2.214
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 5fd424cf-1262-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 32768
mapiID: 33028
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.64 Attribute otherFacsimileTelephoneNumber

This attribute specifies a list of alternate facsimile numbers.

```
cn: Phone-Fax-Other
ldapDisplayName: otherFacsimileTelephoneNumber
attributeId: 1.2.840.113556.1.4.646
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0296c11d-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.65 Attribute otherHomePhone

This attribute specifies a list of alternate home phone numbers.

```
cn: Phone-Home-Other
ldapDisplayName: otherHomePhone
attributeId: 1.2.840.113556.1.2.277
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f0f8ffa2-1191-11d0-a060-00aa006c33ed
systemOnly: FALSE
```


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```
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14895
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.66 Attribute otherIpPhone

This attribute specifies a list of alternate TCP/IP addresses for the phone. It is used by telephony.

```
cn: Phone-Ip-Other
ldapDisplayName: otherIpPhone
attributeId: 1.2.840.113556.1.4.722
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 4d146e4b-48d4-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.67 Attribute otherLoginWorkstations

This attribute specifies non-Windows NT or LAN Manager workstations from which a user can log on.

```
cn: Other-Login-Workstations
ldapDisplayName: otherLoginWorkstations
attributeId: 1.2.840.113556.1.4.91
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf9679f1-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 0
rangeUpper: 1024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.68 Attribute otherMailbox

This attribute specifies other additional mail addresses in a form such as CCMAIL: JeffSmith.

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```
cn: Other-Mailbox
ldapDisplayName: otherMailbox
attributeId: 1.2.840.113556.1.4.651
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0296c123-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.69 Attribute otherMobile

This attribute specifies a list of alternate cell phone numbers.

```
cn: Phone-Mobile-Other
ldapDisplayName: otherMobile
attributeId: 1.2.840.113556.1.4.647
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0296c11e-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.70 Attribute otherPager

This attribute specifies a list of alternate pager numbers.

```
cn: Phone-Pager-Other
ldapDisplayName: otherPager
attributeId: 1.2.840.113556.1.2.118
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f0f8ffa4-1191-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 35950
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.71 Attribute otherTelephone

This attribute specifies a list of alternate office phone numbers.

```
cn: Phone-Office-Other
ldapDisplayName: otherTelephone
attributeId: 1.2.840.113556.1.2.18
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f0f8ffa5-1191-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14875
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.72 Attribute otherWellKnownObjects

This attribute specifies a list of containers by GUID and distinguished name. This permits retrieving an object after it has been moved by using just the GUID and the domain name. Whenever the object is moved, the Active Directory system [MS-ADOD] will automatically update the distinguished name. See [MS-ADTS] section 6.1.

```
cn: Other-Well-Known-Objects
ldapDisplayName: otherWellKnownObjects
attributeId: 1.2.840.113556.1.4.1359
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: 1ea64e5d-ac0f-11d2-90df-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeLower and rangeUpper are not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.73 Attribute ou

This attribute specifies the name of the organizational unit. When used as a component of a directory name, it identifies an organizational unit with which the named object is affiliated.

```
cn: Organizational-Unit-Name
```


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```
ldapDisplayName: ou
attributeId: 2.5.4.11
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf9679f0-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 33026
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.74 Attribute owner

This attribute specifies the name of some object that has some responsibility for the associated object. An attribute value for owner is a distinguished name (which could represent a group of names) and can recur.

```
cn: Owner
ldapDisplayName: owner
attributeId: 2.5.4.32
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: bf9679f3-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
linkID: 44
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.75 Attribute ownerBL

This attribute specifies the back-link to the owner attribute. It contains a list of owners for an object.

```
cn: ms-Exch-Owner-BL
ldapDisplayName: ownerBL
attributeId: 1.2.840.113556.1.2.104
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: bf9679f4-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
linkID: 45
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.76 Attribute packageFlags

This attribute specifies a bit field that contains the deployment state flags for an application. This attribute can be set to 0 or a combination of one or more of the values listed in [MSDN-PACKAGE-FLAGS].

```
cn: Package-Flags
ldapDisplayName: packageFlags
attributeId: 1.2.840.113556.1.4.327
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 7d6c0e99-7e20-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.77 Attribute packageName

This attribute specifies the deployment name for an application.

```
cn: Package-Name
ldapDisplayName: packageName
attributeId: 1.2.840.113556.1.4.326
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7d6c0e98-7e20-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.78 Attribute packageType

This attribute specifies the type of installation required for an application package. For example, MSI, EXE, CAB.

```
cn: Package-Type
ldapDisplayName: packageType
attributeId: 1.2.840.113556.1.4.324
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
```


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```
schemaIdGuid: 7d6c0e96-7e20-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.79 Attribute pager

This attribute specifies the primary pager number.

```
cn: Phone-Pager-Primary
ldapDisplayName: pager
attributeId: 0.9.2342.19200300.100.1.42
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f0f8ffa6-1191-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14881
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.80 Attribute parentCA

This attribute specifies the distinguished name of a CA object for a parent certificate authority.

```
cn: Parent-CA
ldapDisplayName: parentCA
attributeId: 1.2.840.113556.1.4.557
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 5245801b-ca6a-11d0-afff-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.81 Attribute parentCACertificateChain

This attribute specifies the DER-encoded X509v3 certificate [X509] for a parent certificate authority.

```
cn: Parent-CA-Certificate-Chain
```


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```
ldapDisplayName: parentCACertificateChain
attributeId: 1.2.840.113556.1.4.685
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 963d2733-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.82 Attribute parentGUID

This attribute specifies a constructed attribute, invented to support the DirSync control. It holds the objectGuid of an object's parent when replicating an object's creation, rename, or move.

```
cn: Parent-GUID
ldapDisplayName: parentGUID
attributeId: 1.2.840.113556.1.4.1224
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 2df90d74-009f-11d2-aa4c-00c04fd7d83a
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.83 Attribute partialAttributeDeletionList

This attribute specifies the internal replication state of partial replicas (that is, on global catalogs (GCs)). It is an attribute of the partial replica NC object and is used when the GC is in the process of removing attributes from the objects in its partial replica NCs. See [MS-DRSR] for more information on implementation usage.

```
cn: Partial-Attribute-Deletion-List
ldapDisplayName: partialAttributeDeletionList
attributeId: 1.2.840.113556.1.4.663
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 28630ec0-41d5-11d1-a9c1-0000f80367c1
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.84 Attribute partialAttributeSet

This attribute specifies the internal replication state of partial replicas (that is, on GCs). It is an attribute of the partial replica NC object, and defines the set of attributes present on a particular partial replica NC. See [MS-DRSR] section 5.147 for more information on Active Directory service usage.

```
cn: Partial-Attribute-Set
ldapDisplayName: partialAttributeSet
attributeId: 1.2.840.113556.1.4.640
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 19405b9e-3cfa-11d1-a9c0-0000f80367c1
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.85 Attribute pekKeyChangeInterval

This attribute specifies the password encryption key change interval. For more information, refer to [MS-SAMR].

```
cn: Pek-Key-Change-Interval
ldapDisplayName: pekKeyChangeInterval
attributeId: 1.2.840.113556.1.4.866
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 07383084-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.86 Attribute pekList

This attribute specifies a list of password encryption keys. This attribute is for internal use only and it is not replicated. Its content is not accessible through any protocol, for more information see [MS-ADTS].

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```
cn: Pek-List
ldapDisplayName: pekList
attributeId: 1.2.840.113556.1.4.865
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 07383083-91df-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.87 Attribute pendingCACertificates

This attribute specifies the certificates that are about to become effective for this certificate authority.

```
cn: Pending-CA-Certificates
ldapDisplayName: pendingCACertificates
attributeId: 1.2.840.113556.1.4.693
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 963d273c-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.88 Attribute pendingParentCA

This attribute specifies the reference to the certificate authorities that issued the pending certificates for this certificate authority.

```
cn: Pending-Parent-CA
ldapDisplayName: pendingParentCA
attributeId: 1.2.840.113556.1.4.695
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 963d273e-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.89 Attribute perMsgDialogDisplayTable

This attribute specifies the per message options MAPI display table.

```
cn: Per-Msg-Dialog-Display-Table
ldapDisplayName: perMsgDialogDisplayTable
attributeId: 1.2.840.113556.1.2.325
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 5fd424d3-1262-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 32768
mapiID: 33032
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.90 Attribute perRecipDialogDisplayTable

This attribute specifies the per recipient options MAPI display table.

```
cn: Per-Recip-Dialog-Display-Table
ldapDisplayName: perRecipDialogDisplayTable
attributeId: 1.2.840.113556.1.2.326
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 5fd424d4-1262-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 32768
mapiID: 33033
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.91 Attribute personalTitle

This attribute specifies the user's title.

```
cn: Personal-Title
ldapDisplayName: personalTitle
attributeId: 1.2.840.113556.1.2.615
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 16775858-47f3-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 35947
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.92 Attribute photo

This attribute specifies an object encoded in G3 fax as explained in recommendation T.4 [RFC804], with an ASN.1 wrapper to make it compatible with an X.400 BodyPart as defined in [X420].

```
cn: photo
ldapDisplayName: photo
attributeId: 0.9.2342.19200300.100.1.7
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 9c979768-ba1a-4c08-9632-c6a5c1ed649a
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.93 Attribute physicalDeliveryOfficeName

This attribute specifies the office location in the user's place of business.

```
cn: Physical-Delivery-Office-Name
ldapDisplayName: physicalDeliveryOfficeName
attributeId: 2.5.4.19
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679f7-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fANR | fATTINDEX
rangeLower: 1
rangeUpper: 128
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14873
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.94 Attribute physicalLocationObject

This attribute specifies a map from a device (for example, printer, computer, and so on) to a physical location.

```
cn: Physical-Location-Object
ldapDisplayName: physicalLocationObject
attributeId: 1.2.840.113556.1.4.514
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: b7b13119-b82e-11d0-afee-0000f80367c1
```


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```
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.95 Attribute pKICriticalExtensions

This attribute specifies a list of critical extensions in the certificate template.

```
cn: PKI-Critical-Extensions
ldapDisplayName: pKICriticalExtensions
attributeId: 1.2.840.113556.1.4.1330
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: fc5a9106-3b9d-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.96 Attribute pKIDefaultCSPs

This attribute specifies a list of cryptographic service providers for the certificate template.

```
cn: PKI-Default-CSPs
ldapDisplayName: pKIDefaultCSPs
attributeId: 1.2.840.113556.1.4.1334
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 1ef6336e-3b9e-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.97 Attribute pKIDefaultKeySpec

This attribute specifies the private key specification for the certificate template.

```
cn: PKI-Default-Key-Spec
ldapDisplayName: pKIDefaultKeySpec
attributeId: 1.2.840.113556.1.4.1327
attributeSyntax: 2.5.5.9
omSyntax: 2
```


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```
isSingleValued: TRUE
schemaIdGuid: 426cae6e-3b9d-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.98 Attribute pKIEnrollmentAccess

The PKI-Enrollment-Access attribute is for internal use only.

```
cn: PKI-Enrollment-Access
ldapDisplayName: pKIEnrollmentAccess
attributeId: 1.2.840.113556.1.4.1335
attributeSyntax: 2.5.5.15
omSyntax: 66
isSingleValued: FALSE
schemaIdGuid: 926be278-56f9-11d2-90d0-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.99 Attribute pKIExpirationPeriod

This attribute specifies the validity period for the certificate template.

```
cn: PKI-Expiration-Period
ldapDisplayName: pKIExpirationPeriod
attributeId: 1.2.840.113556.1.4.1331
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 041570d2-3b9e-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.100 Attribute pKIExtendedKeyUsage

This attribute specifies the enhanced key usage OIDs for the certificate template.

```
cn: PKI-Extended-Key-Usage
ldapDisplayName: pKIExtendedKeyUsage
```


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```
attributeId: 1.2.840.113556.1.4.1333
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 18976af6-3b9e-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.101 Attribute pKIKeyUsage

This attribute specifies the key usage extension for the certificate template.

```
cn: PKI-Key-Usage
ldapDisplayName: pKIKeyUsage
attributeId: 1.2.840.113556.1.4.1328
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: e9b0a87e-3b9d-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.102 Attribute pKIMaxIssuingDepth

This attribute specifies the maximum length of the certificate chain issued by the certificate.

```
cn: PKI-Max-Issuing-Depth
ldapDisplayName: pKIMaxIssuingDepth
attributeId: 1.2.840.113556.1.4.1329
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: f0bfdefa-3b9d-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.103 Attribute pKIOverlapPeriod

This attribute specifies the period during which the certificate has to be renewed before it is expired.

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```
cn: PKI-Overlap-Period
ldapDisplayName: pKIOverlapPeriod
attributeId: 1.2.840.113556.1.4.1332
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 1219a3ec-3b9e-11d2-90cc-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.104 Attribute pKT

This attribute specifies the DFS Partition Knowledge Table. It describes the structure of a Distributed File System (DFS) hierarchy.

```
cn: PKT
ldapDisplayName: pKT
attributeId: 1.2.840.113556.1.4.206
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 8447f9f1-1027-11d0-a05f-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeUpper: 10485760
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeUpper is not defined.

2.105 Attribute pKTGuid

This attribute specifies the unique ID of a given DFS Partition Knowledge Table.

```
cn: PKT-Guid
ldapDisplayName: pKTGuid
attributeId: 1.2.840.113556.1.4.205
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 8447f9f0-1027-11d0-a05f-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.106 Attribute policyReplicationFlags

This attribute specifies which LSA properties are replicated to clients. This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

```
cn: Policy-Replication-Flags
ldapDisplayName: policyReplicationFlags
attributeId: 1.2.840.113556.1.4.633
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 19405b96-3cfa-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.107 Attribute portName

This attribute specifies a list of port names, for example, for printer ports or COM ports.

```
cn: Port-Name
ldapDisplayName: portName
attributeId: 1.2.840.113556.1.4.228
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 281416c4-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.108 Attribute possibleInferiors

This attribute specifies the list of classes, instances of which can be child objects of instances of the class on which the possInferiors attribute is present. See [MS-ADTS] section 3.1.1.4.5.21 for more information on Active Directory usage.

```
cn: Possible-Inferiors
ldapDisplayName: possibleInferiors
attributeId: 1.2.840.113556.1.4.915
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: 9a7ad94c-ca53-11d1-bbd0-0080c76670c0
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT | FLAG ATTR IS CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.109 Attribute possSuperiors

This attribute specifies a list of classes, instances of which can be parent objects of the instances of the class on which the possSuperiors attribute is present. See [MS-ADTS] section 3.1.1.2.4.4 for more information on Active Directory usage.

```
cn: Poss-Superiors
ldapDisplayName: possSuperiors
attributeId: 1.2.840.113556.1.2.8
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf9679fa-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.110 Attribute postalAddress

This attribute specifies the mailing address for the object.

```
cn: Postal-Address
ldapDisplayName: postalAddress
attributeId: 2.5.4.16
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf9679fc-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 1
rangeUpper: 4096
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 33036
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.111 Attribute postalCode

This attribute specifies the postal or ZIP code for mail delivery.

```
cn: Postal-Code
```


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```
ldapDisplayName: postalCode
attributeId: 2.5.4.17
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679fd-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 1
rangeUpper: 40
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14890
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.112 Attribute postOfficeBox

This attribute specifies the post office box number for this object.

```
cn: Post-Office-Box
ldapDisplayName: postOfficeBox
attributeId: 2.5.4.18
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf9679fb-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 1
rangeUpper: 40
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14891
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.113 Attribute preferredDeliveryMethod

This attribute specifies the X.500-preferred way to deliver to the addressee, as specified in [X500].

```
cn: Preferred-Delivery-Method
ldapDisplayName: preferredDeliveryMethod
attributeId: 2.5.4.28
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: FALSE
schemaIdGuid: bf9679fe-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 33037
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.114 Attribute preferredLanguage

This attribute specifies the preferred written or spoken language for a person.

```
cn: preferredLanguage
ldapDisplayName: preferredLanguage
attributeId: 2.16.840.1.113730.3.1.39
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 856be0d0-18e7-46e1-8f5f-7ee4d9020e0d
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.115 Attribute preferredOU

This attribute specifies the organizational unit to show by default on the user's desktop.

```
cn: Preferred-OU
ldapDisplayName: preferredOU
attributeId: 1.2.840.113556.1.4.97
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: bf9679ff-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.116 Attribute prefixMap

The prefixMap attribute is for internal use only.

```
cn: Prefix-Map
ldapDisplayName: prefixMap
attributeId: 1.2.840.113556.1.4.538
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 52458022-ca6a-11d0-afff-0000f80367c1
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.117 Attribute presentationAddress

This attribute specifies a presentation address associated with an object representing an OSI application entity.

```
cn: Presentation-Address
ldapDisplayName: presentationAddress
attributeId: 2.5.4.29
attributeSyntax: 2.5.5.13
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.732
isSingleValued: TRUE
schemaIdGuid: a8df744b-c5ea-11d1-bbcb-0080c76670c0
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.118 Attribute previousCACertificates

This attribute specifies the last expired certificate for this certificate authority.

```
cn: Previous-CA-Certificates
ldapDisplayName: previousCACertificates
attributeId: 1.2.840.113556.1.4.692
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 963d2739-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.119 Attribute previousParentCA

This attribute specifies a reference to the certificate authorities that issued the last expired certificate for a certificate authority.

```
cn: Previous-Parent-CA
ldapDisplayName: previousParentCA
attributeId: 1.2.840.113556.1.4.694
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 963d273d-48be-11d1-a9c3-0000f80367c1
```


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```
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.120 Attribute primaryGroupID

This attribute specifies the relative identifier (RID) for the primary group of the user. By default, this is the RID for the Domain Users group. The user is a member of its primary group, although the group is not listed in the user's memberOf attribute. Likewise, a group object's member attribute will not list the user objects whose primaryGroupID is set to the group. For more information, refer to [MS-SAMR] section 3.1.1.8.2, [MS-ADTS], and [MS-ADA2] sections 2.43 and 2.45.

```
cn: Primary-Group-ID
ldapDisplayName: primaryGroupID
attributeId: 1.2.840.113556.1.4.98
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a00-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY| fATTINDEX
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.121 Attribute primaryGroupToken

This attribute specifies a computed attribute that is the relative identifier (RID) of a group's SID. For more information refer to [MS-ADTS] section 3.1.1.4.5.11 and [MS-SAMR].

```
cn: Primary-Group-Token
ldapDisplayName: primaryGroupToken
attributeId: 1.2.840.113556.1.4.1412
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: c0ed8738-7efd-4481-84d9-66d2db8be369
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.122 Attribute primaryInternationalISDNNumber

This attribute specifies the primary ISDN number.

```
cn: Phone-ISDN-Primary
ldapDisplayName: primaryInternationalISDNNumber
attributeId: 1.2.840.113556.1.4.649
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 0296c11f-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.123 Attribute primaryTelexNumber

This attribute specifies the primary telex number.

```
cn: Telex-Primary
ldapDisplayName: primaryTelexNumber
attributeId: 1.2.840.113556.1.4.648
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 0296c121-40da-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.124 Attribute printAttributes

This attribute specifies a bitmask of printer attributes.

```
cn: Print-Attributes
ldapDisplayName: printAttributes
attributeId: 1.2.840.113556.1.4.247
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 281416d7-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.125 Attribute printBinNames

This attribute specifies a list of printer bin names.

```
cn: Print-Bin-Names
ldapDisplayName: printBinNames
attributeId: 1.2.840.113556.1.4.237
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 281416cd-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.126 Attribute printCollate

This attribute specifies whether a printer has collating bins.

```
cn: Print-Collate
ldapDisplayName: printCollate
attributeId: 1.2.840.113556.1.4.242
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 281416d2-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.127 Attribute printColor

This attribute specifies whether a printer can print in color.

```
cn: Print-Color
ldapDisplayName: printColor
attributeId: 1.2.840.113556.1.4.243
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 281416d3-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
```


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```
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.128 Attribute printDuplexSupported

This attribute specifies the type of duplex support a printer has.

```
cn: Print-Duplex-Supported
ldapDisplayName: printDuplexSupported
attributeId: 1.2.840.113556.1.4.1311
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 281416cc-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.129 Attribute printEndTime

This attribute specifies the time a print queue stops servicing jobs.

```
cn: Print-End-Time
ldapDisplayName: printEndTime
attributeId: 1.2.840.113556.1.4.234
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 281416ca-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.130 Attribute printerName

This attribute specifies the display name of an attached printer.

```
cn: Printer-Name
ldapDisplayName: printerName
attributeId: 1.2.840.113556.1.4.300
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 244b296e-5abd-11d0-afd2-00c04fd930c9
```


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```
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.131 Attribute printFormName

This attribute specifies the name of the currently loaded form.

```
cn: Print-Form-Name
ldapDisplayName: printFormName
attributeId: 1.2.840.113556.1.4.235
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 281416cb-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.132 Attribute printKeepPrintedJobs

This attribute specifies whether printed jobs are kept.

```
cn: Print-Keep-Printed-Jobs
ldapDisplayName: printKeepPrintedJobs
attributeId: 1.2.840.113556.1.4.275
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: ba305f6d-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.133 Attribute printLanguage

This attribute specifies the supported page description language (for example, PostScript, PCL).

```
cn: Print-Language
ldapDisplayName: printLanguage
attributeId: 1.2.840.113556.1.4.246
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
```


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```
schemaIdGuid: 281416d6-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.134 Attribute printMACAddress

This attribute specifies the user-supplied MAC address.

```
cn: Print-MAC-Address
ldapDisplayName: printMACAddress
attributeId: 1.2.840.113556.1.4.288
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f7a-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.135 Attribute printMaxCopies

This attribute specifies the maximum number of copies a device can print.

```
cn: Print-Max-Copies
ldapDisplayName: printMaxCopies
attributeId: 1.2.840.113556.1.4.241
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 281416d1-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.136 Attribute printMaxResolutionSupported

This attribute specifies the maximum printer resolution.

```
cn: Print-Max-Resolution-Supported
ldapDisplayName: printMaxResolutionSupported
attributeId: 1.2.840.113556.1.4.238
attributeSyntax: 2.5.5.9
```


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```
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 281416cf-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.137 Attribute printMaxXExtent

This attribute specifies the maximum horizontal print region.

```
cn: Print-Max-X-Extent
ldapDisplayName: printMaxXExtent
attributeId: 1.2.840.113556.1.4.277
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba305f6f-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.138 Attribute printMaxYExtent

This attribute specifies the maximum vertical print region.

```
cn: Print-Max-Y-Extent
ldapDisplayName: printMaxYExtent
attributeId: 1.2.840.113556.1.4.278
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba305f70-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.139 Attribute printMediaReady

This attribute specifies a list of available media for a printer.

```
cn: Print-Media-Ready
ldapDisplayName: printMediaReady
attributeId: 1.2.840.113556.1.4.289
```


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```
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 3bcbfcf5-4d3d-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

2.140 Attribute printMediaSupported

This attribute specifies a list of media supported by a printer.

```
cn: Print-Media-Supported
ldapDisplayName: printMediaSupported
attributeId: 1.2.840.113556.1.4.299
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 244b296f-5abd-11d0-afd2-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.141 Attribute printMemory

This attribute specifies the amount of memory installed in a printer.

```
cn: Print-Memory
ldapDisplayName: printMemory
attributeId: 1.2.840.113556.1.4.282
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba305f74-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.142 Attribute printMinXExtent

This attribute specifies the minimum horizontal print region.

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```
cn: Print-Min-X-Extent
ldapDisplayName: printMinXExtent
attributeId: 1.2.840.113556.1.4.279
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba305f71-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.143 Attribute printMinYExtent

This attribute specifies the minimum vertical print region.

```
cn: Print-Min-Y-Extent
ldapDisplayName: printMinYExtent
attributeId: 1.2.840.113556.1.4.280
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba305f72-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.144 Attribute printNetworkAddress

This attribute specifies the user-supplied network address.

```
cn: Print-Network-Address
ldapDisplayName: printNetworkAddress
attributeId: 1.2.840.113556.1.4.287
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f79-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.145 Attribute printNotify

This attribute specifies a user-supplied string specifying the notification contact.

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```
cn: Print-Notify
ldapDisplayName: printNotify
attributeId: 1.2.840.113556.1.4.272
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f6a-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.146 Attribute printNumberUp

This attribute specifies the number of page images per sheet.

```
cn: Print-Number-Up
ldapDisplayName: printNumberUp
attributeId: 1.2.840.113556.1.4.290
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 3bcbfcf4-4d3d-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.147 Attribute printOrientationsSupported

This attribute specifies the page rotation for landscape printing.

```
cn: Print-Orientations-Supported
ldapDisplayName: printOrientationsSupported
attributeId: 1.2.840.113556.1.4.240
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 281416d0-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.148 Attribute printOwner

This attribute specifies a user-supplied owner string.

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```
cn: Print-Owner
ldapDisplayName: printOwner
attributeId: 1.2.840.113556.1.4.271
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f69-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.149 Attribute printPagesPerMinute

This attribute specifies the driver-supplied print rate in pages per minute.

```
cn: Print-Pages-Per-Minute
ldapDisplayName: printPagesPerMinute
attributeId: 1.2.840.113556.1.4.631
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 19405b97-3cfa-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.150 Attribute printRate

This attribute specifies the driver-supplied print rate.

```
cn: Print-Rate
ldapDisplayName: printRate
attributeId: 1.2.840.113556.1.4.285
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ba305f77-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.151 Attribute printRateUnit

This attribute specifies the driver-supplied print rate unit.

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```
cn: Print-Rate-Unit
ldapDisplayName: printRateUnit
attributeId: 1.2.840.113556.1.4.286
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f78-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

2.152 Attribute printSeparatorFile

This attribute specifies the file path of the printer separator page.

```
cn: Print-Separator-File
ldapDisplayName: printSeparatorFile
attributeId: 1.2.840.113556.1.4.230
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 281416c6-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.153 Attribute printShareName

This attribute specifies the printer's share name.

```
cn: Print-Share-Name
ldapDisplayName: printShareName
attributeId: 1.2.840.113556.1.4.270
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: ba305f68-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.154 Attribute printSpooling

This attribute specifies a string representing the type of printer spooling.

```
cn: Print-Spooling
ldapDisplayName: printSpooling
attributeId: 1.2.840.113556.1.4.274
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f6c-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.155 Attribute printStaplingSupported

This attribute specifies if the printer supports stapling. It is supplied by the driver.

```
cn: Print-Stapling-Supported
ldapDisplayName: printStaplingSupported
attributeId: 1.2.840.113556.1.4.281
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: ba305f73-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.156 Attribute printStartTime

This attribute specifies the time a print queue begins servicing jobs.

```
cn: Print-Start-Time
ldapDisplayName: printStartTime
attributeId: 1.2.840.113556.1.4.233
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 281416c9-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.157 Attribute printStatus

This attribute specifies the status from the print spooler.

```
cn: Print-Status
ldapDisplayName: printStatus
attributeId: 1.2.840.113556.1.4.273
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: ba305f6b-47e3-11d0-a1a6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.158 Attribute priority

This attribute specifies the current priority (of a process, print job, and so on).

```
cn: Priority
ldapDisplayName: priority
attributeId: 1.2.840.113556.1.4.231
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 281416c7-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.159 Attribute priorSetTime

This attribute specifies the previous time set for a secret.

```
cn: Prior-Set-Time
ldapDisplayName: priorSetTime
attributeId: 1.2.840.113556.1.4.99
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a01-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.160 Attribute priorValue

This attribute specifies the previous value for a secret.

```
cn: Prior-Value
ldapDisplayName: priorValue
attributeId: 1.2.840.113556.1.4.100
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a02-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.161 Attribute privateKey

This attribute specifies an encrypted private key.

```
cn: Private-Key
ldapDisplayName: privateKey
attributeId: 1.2.840.113556.1.4.101
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a03-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.162 Attribute privilegeAttributes

This attribute specifies a bitmask of privilege attributes.

```
cn: Privilege-Attributes
ldapDisplayName: privilegeAttributes
attributeId: 1.2.840.113556.1.4.636
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 19405b9a-3cfa-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.163 Attribute privilegeDisplayName

This attribute specifies a display name for a Windows NT privilege.

```
cn: Privilege-Display-Name
ldapDisplayName: privilegeDisplayName
attributeId: 1.2.840.113556.1.4.634
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 19405b98-3cfa-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.164 Attribute privilegeHolder

This attribute specifies a list of distinguished names of principals that are granted this privilege.

```
cn: Privilege-Holder
ldapDisplayName: privilegeHolder
attributeId: 1.2.840.113556.1.4.637
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 19405b9b-3cfa-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 70
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.165 Attribute privilegeValue

This attribute specifies a value representing a Windows NT privilege.

```
cn: Privilege-Value
ldapDisplayName: privilegeValue
attributeId: 1.2.840.113556.1.4.635
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 19405b99-3cfa-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.166 Attribute productCode

This attribute specifies a unique identifier for an application for a particular product release, represented as a string GUID, for example, "{12345678-1234-1234-1234-123456789012}". Letters used in this GUID are uppercase. This ID varies for different versions and languages.

```
cn: Product-Code
ldapDisplayName: productCode
attributeId: 1.2.840.113556.1.4.818
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: d9e18317-8939-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.167 Attribute profilePath

This attribute specifies a path to the user's profile. This value can be a null string, a local absolute path, or a UNC path.

```
cn: Profile-Path
ldapDisplayName: profilePath
attributeId: 1.2.840.113556.1.4.139
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a05-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.168 Attribute proxiedObjectName

This attribute specifies an internal tracking object used by Active Directory to help track interdomain moves.

```
cn: Proxied-Object-Name
ldapDisplayName: proxiedObjectName
```


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```
attributeId: 1.2.840.113556.1.4.1249
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: TRUE
schemaIdGuid: e1aea402-cd5b-11d0-afff-0000f80367c1
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG ATTR REQ PARTIAL SET MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.169 Attribute proxyAddresses

A proxy address is the address by which an Exchange Server recipient object is recognized in a foreign mail system. Proxy addresses are required for all recipient objects, such as custom recipients and distribution lists.

```
cn: Proxy-Addresses
ldapDisplayName: proxyAddresses
attributeId: 1.2.840.113556.1.2.210
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf967a06-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fANR | fATTINDEX
rangeLower: 1
rangeUpper: 1123
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 32783
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.170 Attribute proxyGenerationEnabled

This attribute specifies whether proxy generation is enabled.

```
cn: Proxy-Generation-Enabled
ldapDisplayName: proxyGenerationEnabled
attributeId: 1.2.840.113556.1.2.523
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 5fd424d6-1262-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
```


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```
mapiID: 33201
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.171 Attribute proxyLifetime

This attribute specifies the lifetime for a proxy object.

```
cn: Proxy-Lifetime
ldapDisplayName: proxyLifetime
attributeId: 1.2.840.113556.1.4.103
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a07-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.172 Attribute publicKeyPolicy

This attribute specifies a reference to the public key policy for this domain.

```
cn: Public-Key-Policy
ldapDisplayName: publicKeyPolicy
attributeId: 1.2.840.113556.1.4.420
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 80a67e28-9f22-11d0-afdd-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: a29b89fd-c7e8-11d0-9bae-00c04fd92ef5
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.173 Attribute purportedSearch

This attribute specifies the search argument for an address book view.

```
cn: Purported-Search
ldapDisplayName: purportedSearch
attributeId: 1.2.840.113556.1.4.886
attributeSyntax: 2.5.5.12
omSyntax: 64
```


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```
isSingleValued: TRUE
schemaIdGuid: b4b54e50-943a-11d1-aebd-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 2048
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.174 Attribute pwdHistoryLength

This attribute specifies the number of old passwords to save. See [MS-SAMR] and [MS-ADTS] references for more information on how Active Directory uses this attribute.

```
cn: Pwd-History-Length
ldapDisplayName: pwdHistoryLength
attributeId: 1.2.840.113556.1.4.95
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a09-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 65535
attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.175 Attribute pwdLastSet

This attribute specifies the date and time that the password for this account was last changed. This value is stored as a large integer that represents the number of 100 nanosecond intervals since January 1, 1601 (UTC). If this value is set to 0 and the User-Account-Control attribute does not contain the ADS_UF_DONT_EXPIRE_PASSWD flag, the user sets the password at the next logon. See [MS-SAMR] section 3.1.1.8.8 and [MS-ADTS] for more information on how Active Directory uses this attribute.

```
cn: Pwd-Last-Set
ldapDisplayName: pwdLastSet
attributeId: 1.2.840.113556.1.4.96
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a0a-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.176 Attribute pwdProperties

This attribute specifies an unsigned long numeric that, bit by bit, is home to several true/false policies, most of which can be configured under the default domain policy Group Policy Object's (GPO's) Computer Configuration\Windows Settings\Security Settings\Account Policies\Password Policy folder. For example, the DOMAIN_PASSWORD_COMPLEX setting, which can be configured through a GPO's "Passwords must meet complexity requirements" policy, occupies pwdProperties' first bit. See [MS-SAMR] for more information on bit descriptions.

```
cn: Pwd-Properties
ldapDisplayName: pwdProperties
attributeId: 1.2.840.113556.1.4.93
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a0b-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: c7407360-20bf-11d0-a768-00aa006e0529
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.177 Attribute qualityOfService

This attribute specifies the local/domain quality of service bits on policy objects.

```
cn: Quality-Of-Service
ldapDisplayName: qualityOfService
attributeId: 1.2.840.113556.1.4.458
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 80a67e4e-9f22-11d0-afdd-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: a29b8a01-c7e8-11d0-9bae-00c04fd92ef5
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.178 Attribute queryFilter

This attribute specifies a Query-Filter. It is used by Active Directory administrative tools to store saved queries on display specifiers.

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```
cn: Query-Filter
ldapDisplayName: queryFilter
attributeId: 1.2.840.113556.1.4.1355
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: cbf70a26-7e78-11d2-9921-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.179 Attribute queryPoint

This attribute specifies the URL or UNC of a query page or other front end for accessing a catalog.

```
cn: QueryPoint
ldapDisplayName: queryPoint
attributeId: 1.2.840.113556.1.4.680
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7bfdcb86-4807-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.180 Attribute queryPolicyBL

This attribute is the back link attribute of queryPolicy and contains a list of all objects holding references to a given Query-Policy.

```
cn: Query-Policy-BL
ldapDisplayName: queryPolicyBL
attributeId: 1.2.840.113556.1.4.608
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: e1aea404-cd5b-11d0-afff-0000f80367c1
systemOnly: TRUE
searchFlags: 0
linkID: 69
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.181 Attribute queryPolicyObject

This attribute specifies the reference to the default Query-Policy in force for this server.

```
cn: Query-Policy-Object
ldapDisplayName: queryPolicyObject
attributeId: 1.2.840.113556.1.4.607
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: e1aea403-cd5b-11d0-afff-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 68
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.182 Attribute rangeLower

This attribute specifies a lower range of values that are allowed for an attribute, and is optional.

For syntax Integer, LargeInteger, Enumeration, String(UTC-time), and String(Generalized-time), rangeLower equals the minimum allowed value. For syntax Object(DN-binary) and Object(DN-String), rangeLower equals the minimum length of the binary_value or string_value portion of the given value. For String(Unicode), rangeLower is the minimum length, in Unicode characters. rangeLower is not used on syntax Boolean and Object(DS-DN). For all other syntaxes, rangeLower equals the minimum length in bytes. Note that rangeLower is a 32-bit integer and cannot express the full range of LargeInteger, String(UTC-time), and String(Generalized-time).

```
cn: Range-Lower
ldapDisplayName: rangeLower
attributeId: 1.2.840.113556.1.2.34
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a0c-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
mapiID: 33043
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.183 Attribute rangeUpper

This attribute specifies an upper range of values that are allowed for an attribute, and is optional.

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For syntax Integer, LargeInteger, Enumeration, String(UTC-time), and String(Generalized-time), rangeUpper equals the maximum allowed value. For syntax Object(DN-binary) and Object(DN-String), rangeUpper equals the maximum length of the binary_value or string_value portion of the given value. For String(Unicode), rangeUpper is the maximum length, in Unicode characters. rangeUpper is not used on syntax Boolean and Object(DS-DN). For all other syntaxes, rangeUpper equals the maximum length in bytes. Note that rangeUpper is a 32-bit integer and cannot express the full range of LargeInteger, String(UTC-time), and String(Generalized-time).

```
cn: Range-Upper
ldapDisplayName: rangeUpper
attributeId: 1.2.840.113556.1.2.35
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a0d-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
mapiID: 33044
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.184 Attribute rDNAttID

This attribute specifies the attributeId of the **RDN** attribute. If the value is not defined, it will be inherited from the superclass of the class in which this attribute appears. See [MS-ADTS] sections 3.1.1.2.4.8 and 3.1.1.3.1.2.1 for more information.

```
cn: RDN-Att-ID
ldapDisplayName: rDNAttID
attributeId: 1.2.840.113556.1.2.26
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: TRUE
schemaIdGuid: bf967a0f-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.185 Attribute registeredAddress

This attribute specifies a mnemonic for an address associated with an object at a particular city location. The mnemonic is registered in the country/region in which the city is located and is used in the provision of the Public Telegram Service.

```
cn: Registered-Address
```


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```
ldapDisplayName: registeredAddress
attributeId: 2.5.4.26
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a10-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 4096
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 33049
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.186 Attribute remoteServerName

This attribute specifies where one or more machine names are stored.

```
cn: Remote-Server-Name
ldapDisplayName: remoteServerName
attributeId: 1.2.840.113556.1.4.105
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf967a12-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.187 Attribute remoteSource

This attribute specifies a back pointer to foreign objects.

```
cn: Remote-Source
ldapDisplayName: remoteSource
attributeId: 1.2.840.113556.1.4.107
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a14-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 1024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.188 Attribute remoteSourceType

This attribute specifies a type of pointer to a foreign object.

```
cn: Remote-Source-Type
ldapDisplayName: remoteSourceType
attributeId: 1.2.840.113556.1.4.108
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a15-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.189 Attribute remoteStorageGUID

This attribute specifies the GUID for a remote storage object.

```
cn: Remote-Storage-GUID
ldapDisplayName: remoteStorageGUID
attributeId: 1.2.840.113556.1.4.809
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2a39c5b0-8960-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.190 Attribute replicaSource

This attribute specifies the GUID of a replication source. For more information, refer to [MS-DRSR].

```
cn: Replica-Source
ldapDisplayName: replicaSource
attributeId: 1.2.840.113556.1.4.109
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a18-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.191 Attribute replInterval

This attribute specifies the attribute of Site-Link objects that defines the interval, in minutes, between replication cycles among the sites in the Site-List. It is a multiple of 15 minutes (the granularity of cross-site DS replication), a minimum of 15 minutes, and a maximum of 10,080 minutes (one week). For more information, refer to [MS-DRSR].

```
cn: Repl-Interval
ldapDisplayName: replInterval
attributeId: 1.2.840.113556.1.4.1336
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 45ba9d1a-56fa-11d2-90d0-00c04fd91ab1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.192 Attribute replPropertyMetaData

This attribute specifies the internal replication state information for directory service (DS) objects. Information here can be extracted in public form through the public API DsReplicaGetInfo(). Present on all DS objects. For more information, refer to [MS-DRSR].

```
cn: Repl-Property-Meta-Data
ldapDisplayName: replPropertyMetaData
attributeId: 1.2.840.113556.1.4.3
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 281416c0-1968-11d0-a28f-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT | FLAG ATTR IS OPERATIONAL |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
```

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.193 Attribute replTopologyStayOfExecution

This attribute specifies the delay between deleting a server object and it being permanently removed from the replication topology. For more information, refer to [MS-DRSR].

```
cn: Repl-Topology-Stay-Of-Execution
ldapDisplayName: replTopologyStayOfExecution
attributeId: 1.2.840.113556.1.4.677
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 7bfdcb83-4807-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.194 Attribute replUpToDateVector

This attribute specifies the internal replication state information for an entire NC. Information here can be extracted in public form through the API DsReplicaGetInfo(). Present on all NC root objects. For more information, refer to [MS-DRSR] section 5.166.

```
cn: Repl-UpToDate-Vector
ldapDisplayName: replUpToDateVector
attributeId: 1.2.840.113556.1.4.4
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a16-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.195 Attribute repsFrom

This attribute specifies a list for the servers from which the directory will accept changes for the defined naming context. For more information, refer to [MS-DRSR] section 5.172.

```
cn: Reps-From
ldapDisplayName: repsFrom
attributeId: 1.2.840.113556.1.2.91
attributeSyntax: 2.5.5.10
omSyntax: 127
```


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```
omObjectClass: 1.2.840.113556.1.1.1.6
isSingleValued: FALSE
schemaIdGuid: bf967a1d-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.196 Attribute repsTo

This attribute specifies the list of servers that the directory will notify of changes and servers to which the directory will send changes on request for the defined naming context. For more information, refer to [MS-DRSR] section 5.173.

```
cn: Reps-To
ldapDisplayName: repsTo
attributeId: 1.2.840.113556.1.2.83
attributeSyntax: 2.5.5.10
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.6
isSingleValued: FALSE
schemaIdGuid: bf967a1e-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.197 Attribute requiredCategories

This attribute specifies a list of component category IDs that an object (such as an application) requires to run.

```
cn: Required-Categories
ldapDisplayName: requiredCategories
attributeId: 1.2.840.113556.1.4.321
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 7d6c0e93-7e20-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 16
rangeUpper: 16
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.198 Attribute retiredReplDSASignatures

This attribute specifies the past DS replication identities of a given DC. For more information, refer to [MS-DRSR].

```
cn: Retired-Repl-DSA-Signatures
ldapDisplayName: retiredReplDSASignatures
attributeId: 1.2.840.113556.1.4.673
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 7bfdcb7f-4807-11d1-a9c3-0000f80367c1
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.199 Attribute revision

This attribute specifies the revision level for a security descriptor or other change. Only used in the sam-server and ds-ui-settings objects. For more information, refer to [MS-SAMR].

```
cn: Revision
ldapDisplayName: revision
attributeId: 1.2.840.113556.1.4.145
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a21-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.200 Attribute rid

This attribute specifies the relative identifier (RID) of an object.

```
cn: Rid
```


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```
ldapDisplayName: rid
attributeId: 1.2.840.113556.1.4.153
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a22-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.201 Attribute rIDAllocationPool

This attribute specifies a pool that was prefetched for use by the RID manager when the RID-Previous-Allocation-Pool has been used up.

```
cn: RID-Allocation-Pool
ldapDisplayName: rIDAllocationPool
attributeId: 1.2.840.113556.1.4.371
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 66171889-8f3c-11d0-afda-00c04fd930c9
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.202 Attribute rIDAvailablePool

This attribute specifies the space from which RID pools are allocated.

```
cn: RID-Available-Pool
ldapDisplayName: rIDAvailablePool
attributeId: 1.2.840.113556.1.4.370
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 66171888-8f3c-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.203 Attribute rIDManagerReference

This attribute specifies the distinguished name for the RID manager of an object.

```
cn: RID-Manager-Reference
ldapDisplayName: rIDManagerReference
attributeId: 1.2.840.113556.1.4.368
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 66171886-8f3c-11d0-afda-00c04fd930c9
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.204 Attribute rIDNextRID

This attribute specifies the next free relative identifier in the current pool.

```
cn: RID-Next-RID
ldapDisplayName: rIDNextRID
attributeId: 1.2.840.113556.1.4.374
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 6617188c-8f3c-11d0-afda-00c04fd930c9
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.205 Attribute rIDPreviousAllocationPool

The RID-Previous-Allocation-Pool attribute contains the pool of RIDs that a domain controller allocates from. This attribute is an 8-byte value that contains a pair of 4-byte integers that represent the start and end values of the RID pool. The start value is in the lower 4 bytes, and the end value is in the upper 4 bytes.

```
cn: RID-Previous-Allocation-Pool
ldapDisplayName: rIDPreviousAllocationPool
attributeId: 1.2.840.113556.1.4.372
attributeSyntax: 2.5.5.16
omSyntax: 65
```


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```
isSingleValued: TRUE
schemaIdGuid: 6617188a-8f3c-11d0-afda-00c04fd930c9
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.206 Attribute rIDSetReferences

This attribute specifies the list of references to RID-Set objects managing RID allocation.

```
cn: RID-Set-References
ldapDisplayName: rIDSetReferences
attributeId: 1.2.840.113556.1.4.669
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 7bfdcb7b-4807-11d1-a9c3-0000f80367c1
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.207 Attribute rIDUsedPool

This attribute specifies the RID pools that have been used by a DC.

```
cn: RID-Used-Pool
ldapDisplayName: rIDUsedPool
attributeId: 1.2.840.113556.1.4.373
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 6617188b-8f3c-11d0-afda-00c04fd930c9
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.208 Attribute rightsGuid

This attribute specifies the GUID used to represent an extended right within an access control entry (ACE).

```
cn: Rights-Guid
ldapDisplayName: rightsGuid
attributeId: 1.2.840.113556.1.4.340
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 8297931c-86d3-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
rangeLower: 36
rangeUpper: 36
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.209 Attribute roleOccupant

The distinguished name of an object that fulfills an organizational role.

```
cn: Role-Occupant
ldapDisplayName: roleOccupant
attributeId: 2.5.4.33
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: a8df7465-c5ea-11d1-bbcb-0080c76670c0
systemOnly: FALSE
searchFlags: 0
mapiID: 33061
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.210 Attribute roomNumber

This attribute specifies the room number of an object.

```
cn: roomNumber
ldapDisplayName: roomNumber
attributeId: 0.9.2342.19200300.100.1.6
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 81d7f8c2-e327-4a0d-91c6-b42d4009115f
systemOnly: FALSE
searchFlags: 0
```


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Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.211 Attribute rootTrust

This attribute specifies the distinguished name of another Cross-Ref.

```
cn: Root-Trust
ldapDisplayName: rootTrust
attributeId: 1.2.840.113556.1.4.674
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 7bfdcb80-4807-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.212 Attribute rpcNsAnnotation

This attribute specifies a string describing a given RPC profile element.

```
cn: rpc-Ns-Annotation
ldapDisplayName: rpcNsAnnotation
attributeId: 1.2.840.113556.1.4.366
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 88611bde-8cf4-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.213 Attribute rpcNsBindings

This attribute specifies the list of RPC bindings for the current interface.

```
cn: rpc-Ns-Bindings
ldapDisplayName: rpcNsBindings
attributeId: 1.2.840.113556.1.4.113
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf967a23-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.214 Attribute rpcNsCodeset

This attribute specifies the list of character sets supported by a server.

```
cn: rpc-Ns-Codeset
ldapDisplayName: rpcNsCodeset
attributeId: 1.2.840.113556.1.4.367
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 7a0ba0e0-8e98-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.215 Attribute rpcNsEntryFlags

This attribute specifies a flag to indicate that the RPC NS entry was explicitly created.

```
cn: rpc-Ns-Entry-Flags
ldapDisplayName: rpcNsEntryFlags
attributeId: 1.2.840.113556.1.4.754
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 80212841-4bdc-11d1-a9c4-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.216 Attribute rpcNsGroup

This attribute specifies a reference to an RPC server entry or another RPC group.

```
cn: rpc-Ns-Group
ldapDisplayName: rpcNsGroup
attributeId: 1.2.840.113556.1.4.114
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: bf967a24-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.217 Attribute rpcNsInterfaceID

This attribute specifies an interface ID that is supported by a given server.

```
cn: rpc-Ns-Interface-ID
ldapDisplayName: rpcNsInterfaceID
attributeId: 1.2.840.113556.1.4.115
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a25-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.218 Attribute rpcNsObjectID

This attribute specifies the object IDs exported by a given server.

```
cn: rpc-Ns-Object-ID
ldapDisplayName: rpcNsObjectID
attributeId: 1.2.840.113556.1.4.312
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 29401c48-7a27-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.219 Attribute rpcNsPriority

This attribute specifies the priority of a given RPC profile entry.

```
cn: rpc-Ns-Priority
ldapDisplayName: rpcNsPriority
attributeId: 1.2.840.113556.1.4.117
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: FALSE
schemaIdGuid: bf967a27-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.220 Attribute rpcNsProfileEntry

This attribute specifies the list of entries for the current priority.

```
cn: rpc-Ns-Profile-Entry
ldapDisplayName: rpcNsProfileEntry
attributeId: 1.2.840.113556.1.4.118
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a28-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.221 Attribute rpcNsTransferSyntax

This attribute specifies the UUID of the transfer syntax supported by the current entry.

```
cn: rpc-Ns-Transfer-Syntax
ldapDisplayName: rpcNsTransferSyntax
attributeId: 1.2.840.113556.1.4.314
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 29401c4a-7a27-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.222 Attribute sAMAccountName

This attribute specifies the logon name used to support clients and servers running LAN manager and older versions of the operating system, such as Windows NT 4.0 operating system, Windows 95 operating system, and Microsoft Windows 98 operating system. This attribute has to be less than 20 characters to support older clients.

```
cn: SAM-Account-Name
ldapDisplayName: sAMAccountName
attributeId: 1.2.840.113556.1.4.221
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
```


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```
schemaIdGuid: 3e0abfd0-126a-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE| fANR | fATTINDEX
rangeLower: 0
rangeUpper: 256
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.223 Attribute sAMAccountType

This attribute specifies the account type of the security principal objects in Active Directory.

The possible values for this attribute are defined in the following table.

Name	Value
SAM_DOMAIN_OBJECT	0x0
SAM_GROUP_OBJECT	0x10000000
SAM_NON_SECURITY_GROUP_OBJECT	0x10000001
SAM_ALIAS_OBJECT	0x20000000
SAM_NON_SECURITY_ALIAS_OBJECT	0x20000001
SAM_USER_OBJECT	0x30000000
SAM_MACHINE_ACCOUNT	0x30000001
SAM_TRUST_ACCOUNT	0x30000002
SAM_APP_BASIC_GROUP	0x40000000
SAM_APP_QUERY_GROUP	0x40000001
SAM_ACCOUNT_TYPE_MAX	0x7fffffff

```
cn: SAM-Account-Type
ldapDisplayName: sAMAccountType
attributeId: 1.2.840.113556.1.4.302
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 6e7b626c-64f2-11d0-afd2-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.224 Attribute samDomainUpdates

Contains a bitmask of performed SAM operations on Active Directory.

```
cn: SAM-Domain-Updates
ldapDisplayName: samDomainUpdates
attributeId: 1.2.840.113556.1.4.1969
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 04d2d114-f799-4e9b-bcdc-90e8f5ba7ebe
systemOnly: FALSE
searchFlags: 0
rangeUpper: 1024
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.225 Attribute schedule

This attribute specifies a schedule binary large object (BLOB) as defined by the NT Job Service. It is used by replication. Refer to [MS-DRSR] for more information about this structure.

```
cn: Schedule
ldapDisplayName: schedule
attributeId: 1.2.840.113556.1.4.211
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: dd712224-10e4-11d0-a05f-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.226 Attribute schemaFlagsEx

This attribute specifies an integer value that contains flags that define additional properties of the attribute, as shown below. See [MS-ADTS] for more information. This is an optional attribute.

The schemaFlagsEx attribute contains bitwise flags. The following value is relevant to schema objects:

- FLAG_ATTR_IS_CRITICAL: Specifies that the attribute is not a member of the filtered attribute set even if the fRODCFilteredAttribute ([MS-ADTS] section 3.1.1.2.3.5) is set.

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This attribute is defined as follows:

```
cn: Schema-Flags-Ex
ldapDisplayName: schemaFlagsEx
attributeId: 1.2.840.113556.1.4.120
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a2b-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

The FLAG_ATTR_IS_CRITICAL value was implemented in Windows Server 2008.

2.227 Attribute schemaIDGUID

This attribute specifies a unique GUID that identifies this attribute, and is used in security descriptors. It is required on an attributeSchema object. If omitted during Add, the server will auto-generate a random GUID. See [MS-ADTS] section 3.1.1.2.3 for more information.

```
cn: Schema-ID-GUID
ldapDisplayName: schemaIDGUID
attributeId: 1.2.840.113556.1.4.148
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967923-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.228 Attribute schemaInfo

This attribute specifies an internal binary value used to detect schema changes between DCs, and force a schema NC replication cycle before replicating any other NC. It is used to resolve ties when the schema FSMO is seized and a change is made on more than one DC.

```
cn: Schema-Info
ldapDisplayName: schemaInfo
attributeId: 1.2.840.113556.1.4.1358
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
```


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```
schemaIdGuid: f9fb64ae-93b4-11d2-9945-0000f87a57d4
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.229 Attribute schemaUpdate

This attribute is not necessary for Active Directory to function. The protocol does not define a format beyond that required by the schema.

```
cn: Schema-Update
ldapDisplayName: schemaUpdate
attributeId: 1.2.840.113556.1.4.481
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: 1e2d06b4-ac8f-11d0-afe3-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.230 Attribute schemaVersion

This attribute specifies the version number for the schema.

```
cn: Schema-Version
ldapDisplayName: schemaVersion
attributeId: 1.2.840.113556.1.2.471
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: FALSE
schemaIdGuid: bf967a2c-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
mapiID: 33148
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.231 Attribute scopeFlags

```
cn: Scope-Flags
ldapDisplayName: scopeFlags
attributeId: 1.2.840.113556.1.4.1354
attributeSyntax: 2.5.5.9
```


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```
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 16f3a4c2-7e79-11d2-9921-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.232 Attribute scriptPath

This attribute specifies the path for the user's logon script. The string can be null.

```
cn: Script-Path
ldapDisplayName: scriptPath
attributeId: 1.2.840.113556.1.4.62
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679a8-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.233 Attribute sDRightsEffective

This attribute specifies a constructed attribute that returns a single DWORD value that can have up to three bits set: OWNER_SECURITY_INFORMATION, DACL_SECURITY_INFORMATION, and SACL_SECURITY_INFORMATION. If a bit is set, then the user has write access to the corresponding part of the security descriptor. Owner means both owner and group.

```
cn: SD-Rights-Effective
ldapDisplayName: sDRightsEffective
attributeId: 1.2.840.113556.1.4.1304
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: c3dbafa6-33df-11d2-98b2-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.234 Attribute searchFlags

This attribute specifies whether an attribute is indexed, among other things. It is optional and contains the following bitwise flags (further defined in [MS-ADTS] section 2.2.9):

- fATTINDEX: *
- fPDNTATTINDEX: *
- fANR: Add this attribute to the ambiguous name resolution (ANR) set. If set, then fATTINDEX has to be set. See [MS-ADTS] for ANR search.
- fPRESERVEONDELETE: Preserve this attribute on logical deletion. This flag is ignored on link attributes.
- fCOPY: Interpreted by LDAP clients, not by the server. If set, the attribute is copied on object copy.
- fTUPLEINDEX: *
- fSUBTREEATTINDEX: *
- fCONFIDENTIAL: This attribute is confidential; special access check is needed. For more information, see [MS-ADTS] section 3.1.1.4.3.
- fNEVERVALUEAUDIT: *
- fRODCFilteredAttribute: If set, this attribute is in the RODC filtered attribute set.

The searchFlags marked * have an implementation-dependent interpretation defined by Windows. They can be ignored by other implementations, but cannot be used in a conflicting way that would affect the performance of Windows DCs.

```
cn: Search-Flags
ldapDisplayName: searchFlags
attributeId: 1.2.840.113556.1.2.334
attributeSyntax: 2.5.5.9
omSyntax: 10
isSingleValued: TRUE
schemaIdGuid: bf967a2d-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
mapiID: 33069
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.235 Attribute searchGuide

This attribute specifies information about suggested search criteria that can be included in some entries that are expected to be a convenient base-object for the search operation; for example, country/region or organization.

```
cn: Search-Guide
ldapDisplayName: searchGuide
attributeId: 2.5.4.14
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a2e-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
mapiID: 33070
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.236 Attribute secretary

This attribute specifies the distinguished name of the secretary for an account.

```
cn: secretary
ldapDisplayName: secretary
attributeId: 0.9.2342.19200300.100.1.21
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 01072d9a-98ad-4a53-9744-e83e287278fb
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.237 Attribute securityIdentifier

This attribute specifies a unique value of variable length used to identify a user account, group account, or logon session to which an ACE applies.

```
cn: Security-Identifier
ldapDisplayName: securityIdentifier
attributeId: 1.2.840.113556.1.4.121
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a2f-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.238 Attribute seeAlso

This attribute specifies a list of distinguished names that are related to an object.

```
cn: See-Also
ldapDisplayName: seeAlso
attributeId: 2.5.4.34
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: bf967a31-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
mapiID: 33071
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.239 Attribute seqNotification

This attribute specifies a counter that is incremented daily. This counter value is given to the link tracking service that adds the value to its volumes and link source files when they are refreshed. The domain controller maintains this value.

```
cn: Seq-Notification
ldapDisplayName: seqNotification
attributeId: 1.2.840.113556.1.4.504
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: ddac0cf2-af8f-11d0-afeb-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.240 Attribute serialNumber

This attribute specifies a part of the X.500 specification [X500].

```
cn: Serial-Number
ldapDisplayName: serialNumber
attributeId: 2.5.4.5
attributeSyntax: 2.5.5.5
omSyntax: 19
```


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```
isSingleValued: FALSE
schemaIdGuid: bf967a32-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
mapiID: 33072
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.241 Attribute serverName

This attribute specifies the name of a server.

```
cn: Server-Name
ldapDisplayName: serverName
attributeId: 1.2.840.113556.1.4.223
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 09dcb7a0-165f-11d0-a064-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 1024
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.242 Attribute serverReference

This attribute specifies a site computer object. It contains the distinguished name of the domain controller in the domain naming context. Refer to [MS-DRSR] and [MS-ADTS] for more information on how Active Directory uses this attribute.

```
cn: Server-Reference
ldapDisplayName: serverReference
attributeId: 1.2.840.113556.1.4.515
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 26d9736d-6070-11d1-a9c6-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 94
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.243 Attribute serverReferenceBL

This attribute is the back link attribute of serverReference and contains an object found in the domain naming context. The distinguished name of a computer under the sites folder. Refer to [MS-DRSR] and [MS-ADTS] for more information on how Active Directory uses this attribute.

```
cn: Server-Reference-BL
ldapDisplayName: serverReferenceBL
attributeId: 1.2.840.113556.1.4.516
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 26d9736e-6070-11d1-a9c6-0000f80367c1
systemOnly: TRUE
searchFlags: 0
linkID: 95
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

```
isSingleValued: TRUE
```

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.244 Attribute serverRole

This attribute specifies compatibility with servers that preceded Windows 2000 servers. A computer running Windows NT Server operating system can be a stand-alone server, a primary domain controller (PDC), or a backup domain controller (BDC).

```
cn: Server-Role
ldapDisplayName: serverRole
attributeId: 1.2.840.113556.1.4.157
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a33-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

2.245 Attribute serverState

This attribute specifies whether the server is enabled or disabled. A value of 1 indicates that the server is enabled. A value of 2 indicates that the server is disabled. All other values are invalid.

```
cn: Server-State
ldapDisplayName: serverState
attributeId: 1.2.840.113556.1.4.154
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a34-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.246 Attribute serviceBindingInformation

This attribute specifies service-specific binding information in string format.

```
cn: Service-Binding-Information
ldapDisplayName: serviceBindingInformation
attributeId: 1.2.840.113556.1.4.510
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: b7b1311c-b82e-11d0-afee-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.247 Attribute serviceClassID

This attribute specifies the GUID for the Service Class.

```
cn: Service-Class-ID
ldapDisplayName: serviceClassID
attributeId: 1.2.840.113556.1.4.122
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a35-0de6-11d0-a285-00aa003049e2
```


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```
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.248 Attribute serviceClassInfo

This attribute specifies general Service Class information.

```
cn: Service-Class-Info
ldapDisplayName: serviceClassInfo
attributeId: 1.2.840.113556.1.4.123
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a36-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.249 Attribute serviceClassName

This attribute specifies the string name of the service that an administration point represents.

```
cn: Service-Class-Name
ldapDisplayName: serviceClassName
attributeId: 1.2.840.113556.1.4.509
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: b7b1311d-b82e-11d0-afee-0000f80367c1
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.250 Attribute serviceDNSName

This attribute specifies the fully qualified domain name (FQDN) (1) ([MS-ADTS] section 1.1) to look up to find a server running this service.

```
cn: Service-DNS-Name
ldapDisplayName: serviceDNSName
attributeId: 1.2.840.113556.1.4.657
attributeSyntax: 2.5.5.12
```


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```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 28630eb8-41d5-11d1-a9c1-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.251 Attribute serviceDNSNameType

This attribute specifies the type of DNS record to look up for this service. For example, A or SRV.

```
cn: Service-DNS-Name-Type
ldapDisplayName: serviceDNSNameType
attributeId: 1.2.840.113556.1.4.659
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 28630eba-41d5-11d1-a9c1-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.252 Attribute serviceInstanceVersion

This attribute specifies the version of a Winsock service.

```
cn: Service-Instance-Version
ldapDisplayName: serviceInstanceVersion
attributeId: 1.2.840.113556.1.4.199
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a37-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 8
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.253 Attribute servicePrincipalName

This attribute specifies the principal names used for mutual authentication with an instance of a service on this machine. For more information, refer to [MS-DRSR] section 2.2.2.

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```
cn: Service-Principal-Name
ldapDisplayName: servicePrincipalName
attributeId: 1.2.840.113556.1.4.771
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: f3a64788-5306-11d1-a9c5-0000f80367c1
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.254 Attribute setupCommand

This attribute specifies whether or not a setup command is required to set up this application.

```
cn: Setup-Command
ldapDisplayName: setupCommand
attributeId: 1.2.840.113556.1.4.325
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 7d6c0e97-7e20-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.255 Attribute shadowExpire

This attribute specifies an absolute date to expire an account.

```
cn: ShadowExpire
ldapDisplayName: shadowExpire
attributeId: 1.3.6.1.1.1.1.10
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 75159a00-1fff-4cf4-8bff-4ef2695cf643
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.256 Attribute shadowFlag

This attribute specifies a part of the shadow map used to store the flag value.

```
cn: ShadowFlag
ldapDisplayName: shadowFlag
attributeId: 1.3.6.1.1.1.1.11
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 8dfeb70d-c5db-46b6-b15e-a4389e6cee9b
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.257 Attribute shadowInactive

This attribute specifies the number of days before password expiry to warn the user.

```
cn: ShadowInactive
ldapDisplayName: shadowInactive
attributeId: 1.3.6.1.1.1.1.9
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 86871d1f-3310-4312-8efd-af49dcfb2671
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.258 Attribute shadowLastChange

This attribute specifies the last change of shadow information.

```
cn: ShadowLastChange
ldapDisplayName: shadowLastChange
attributeId: 1.3.6.1.1.1.1.5
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: f8f2689c-29e8-4843-8177-e8b98e15eeac
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.259 Attribute shadowMax

This attribute specifies the maximum number of days that a password is valid.

```
cn: ShadowMax
ldapDisplayName: shadowMax
```


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```
attributeId: 1.3.6.1.1.1.1.7
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: f285c952-50dd-449e-9160-3b880d99988d
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.260 Attribute shadowMin

This attribute specifies the minimum number of days between shadow changes.

```
cn: ShadowMin
ldapDisplayName: shadowMin
attributeId: 1.3.6.1.1.1.1.6
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: a76b8737-e5a1-4568-b057-dc12e04be4b2
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.261 Attribute shadowWarning

This attribute specifies the number of days before password expiry to warn the user.

```
cn: ShadowWarning
ldapDisplayName: shadowWarning
attributeId: 1.3.6.1.1.1.1.8
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 7ae89c9c-2976-4a46-bb8a-340f88560117
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.262 Attribute shellContextMenu

This attribute specifies the order number and GUID of the context menu for this object.

```
cn: Shell-Context-Menu
ldapDisplayName: shellContextMenu
attributeId: 1.2.840.113556.1.4.615
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 553fd039-f32e-11d0-b0bc-00c04fd8dca6
systemOnly: FALSE
searchFlags: 0
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.263 Attribute shellPropertyPages

This attribute specifies the order number and GUID of property pages for managing Active Directory objects. These property pages can be accessed from the Windows shell. For more information, see the document "Extending the User Interface for Directory Objects" [MSDN-ExtUserIntDirObj].

```
cn: Shell-Property-Pages
ldapDisplayName: shellPropertyPages
attributeId: 1.2.840.113556.1.4.563
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 52458039-ca6a-11d0-afff-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.264 Attribute shortServerName

This attribute specifies a compatible server name for print servers that preceded Windows 2000.

```
cn: Short-Server-Name
ldapDisplayName: shortServerName
attributeId: 1.2.840.113556.1.4.1209
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 45b01501-c419-11d1-bbc9-0080c76670c0
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.265 Attribute showInAddressBook

This attribute specifies in which MAPI address books an object will appear. It is usually maintained by the Exchange Recipient Update Service.

```
cn: Show-In-Address-Book
ldapDisplayName: showInAddressBook
attributeId: 1.2.840.113556.1.4.644
attributeSyntax: 2.5.5.1
omSyntax: 127
```


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```
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 3e74f60e-3e73-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: fCOPY
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.266 Attribute showInAdvancedViewOnly

This attribute specifies whether the attribute is to be visible in the Advanced mode of user interfaces (UIs). Active Directory snap-ins read this attribute.

```
cn: Show-In-Advanced-View-Only
ldapDisplayName: showInAdvancedViewOnly
attributeId: 1.2.840.113556.1.2.169
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: bf967984-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY| fATTINDEX
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.267 Attribute sIDHistory

This attribute specifies previous SIDs used for the object if the object was moved from another domain. Whenever an object is moved from one domain to another, a new SID is created and that new SID becomes the objectSID. The previous SID is added to the sIDHistory property. For more information, refer to [MS-DRSR] section 4.1.2.

```
cn: SID-History
ldapDisplayName: sIDHistory
attributeId: 1.2.840.113556.1.4.609
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 17eb4278-d167-11d0-b002-0000f80367c1
systemOnly: FALSE
searchFlags: fATTINDEX
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
```


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```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

```
systemOnly: TRUE
```

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.268 Attribute signatureAlgorithms

This attribute specifies the type of algorithm that is used to decode a digital signature during the authentication process.

```
cn: Signature-Algorithms
ldapDisplayName: signatureAlgorithms
attributeId: 1.2.840.113556.1.4.824
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 2a39c5b2-8960-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.269 Attribute siteGUID

This attribute specifies the unique identifier for a site.

```
cn: Site-GUID
ldapDisplayName: siteGUID
attributeId: 1.2.840.113556.1.4.362
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 3e978924-8c01-11d0-afda-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.270 Attribute siteLinkList

This attribute specifies the list of site links that are associated with this bridge.

```
cn: Site-Link-List
ldapDisplayName: siteLinkList
attributeId: 1.2.840.113556.1.4.822
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: d50c2cdd-8951-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 142
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.271 Attribute siteList

This attribute specifies the list of sites connected to this link object.

```
cn: Site-List
ldapDisplayName: siteList
attributeId: 1.2.840.113556.1.4.821
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: d50c2cdc-8951-11d1-aebc-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 144
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.272 Attribute siteObject

This attribute specifies the distinguished name for the site to which this subnet belongs.

```
cn: Site-Object
ldapDisplayName: siteObject
attributeId: 1.2.840.113556.1.4.512
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 3e10944c-c354-11d0-aff8-0000f80367c1
```


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```
systemOnly: FALSE
searchFlags: 0
linkID: 46
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.273 Attribute siteObjectBL

This attribute is the back link attribute of siteObject and contains the list of subnet objects that belong to a site.

```
cn: Site-Object-BL
ldapDisplayName: siteObjectBL
attributeId: 1.2.840.113556.1.4.513
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 3e10944d-c354-11d0-aff8-0000f80367c1
systemOnly: TRUE
searchFlags: 0
linkID: 47
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_NOT_REPLICATED
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.274 Attribute siteServer

This attribute specifies the licensing master server for a given site.

```
cn: Site-Server
ldapDisplayName: siteServer
attributeId: 1.2.840.113556.1.4.494
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 1be8f17c-a9ff-11d0-afe2-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.275 Attribute sn

This attribute specifies the family or last name for a user.

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```
cn: Surname
ldapDisplayName: sn
attributeId: 2.5.4.4
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a41-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fANR | fATTINDEX
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 14865
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.276 Attribute sPNMappings

This multivalued attribute contains a list of service principal names (SPNs) to show the equivalence of SPN types. The SPN is the name a client uses to uniquely identify an instance of a service. If an implementer installs multiple instances of a service on computers throughout a forest, each instance has to have its own SPN. A given service instance can have multiple SPNs if there are multiple names that clients might use for authentication. For example, "ldap/..." SPNs could be mapped so that they are equivalent to "host/..." SPNs. For more information on Active Directory usage, refer to [MS-DRSR] section 4.1.4.2.19.

```
cn: SPN-Mappings
ldapDisplayName: sPNMappings
attributeId: 1.2.840.113556.1.4.1347
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 2ab0e76c-7041-11d2-9905-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.277 Attribute st

This attribute specifies the name of a user's state or province.

```
cn: State-Or-Province-Name
ldapDisplayName: st
attributeId: 2.5.4.8
attributeSyntax: 2.5.5.12
omSyntax: 64
```


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```
isSingleValued: TRUE
schemaIdGuid: bf967a39-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 1
rangeUpper: 128
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14888
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG ATTR REQ PARTIAL SET MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.278 Attribute street

This attribute specifies the street address.

```
cn: Street-Address
ldapDisplayName: street
attributeId: 2.5.4.9
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a3a-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 1
rangeUpper: 1024
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 33082
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG ATTR REQ PARTIAL SET MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.279 Attribute streetAddress

This attribute specifies the user's address.

```
cn: Address
ldapDisplayName: streetAddress
attributeId: 1.2.840.113556.1.2.256
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: f0f8ff84-1191-11d0-a060-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
```


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```
rangeUpper: 1024
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14889
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.280 Attribute structuralObjectClass

This attribute specifies a constructed attribute that stores a list of classes contained in a class hierarchy, including abstract classes. This list does contain dynamically linked auxiliary classes.

```
cn: Structural-Object-Class
ldapDisplayName: structuralObjectClass
attributeId: 2.5.21.9
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: 3860949f-f6a8-4b38-9950-81ecb6bc2982
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.281 Attribute subClassOf

This attribute specifies the parent class of a class.

```
cn: Sub-Class-Of
ldapDisplayName: subClassOf
attributeId: 1.2.840.113556.1.2.21
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: TRUE
schemaIdGuid: bf967a3b-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.282 Attribute subRefs

This attribute specifies a list of subordinate references of a naming context. For more information on subRefs, refer to [MS-ADTS].

```
cn: Sub-Refs
ldapDisplayName: subRefs
attributeId: 1.2.840.113556.1.2.7
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: bf967a3c-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 33083
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.283 Attribute subSchemaSubEntry

This attribute specifies the distinguished name for the location of the subschema object where a class or attribute is defined.

```
cn: SubSchemaSubEntry
ldapDisplayName: subSchemaSubEntry
attributeId: 2.5.18.10
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 9a7ad94d-ca53-11d1-bbd0-0080c76670c0
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.284 Attribute superiorDNSRoot

This attribute specifies a system attribute that is used for referrals generation.

```
cn: Superior-DNS-Root
ldapDisplayName: superiorDNSRoot
attributeId: 1.2.840.113556.1.4.532
attributeSyntax: 2.5.5.12
```


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```
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 5245801d-ca6a-11d0-afff-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.285 Attribute superScopeDescription

This attribute specifies a description for a superscope.

```
cn: Super-Scope-Description
ldapDisplayName: superScopeDescription
attributeId: 1.2.840.113556.1.4.711
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 963d274c-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.286 Attribute superScopes

This attribute groups together all the different scopes used in the DHCP class into a single entity.

```
cn: Super-Scopes
ldapDisplayName: superScopes
attributeId: 1.2.840.113556.1.4.710
attributeSyntax: 2.5.5.5
omSyntax: 19
isSingleValued: FALSE
schemaIdGuid: 963d274b-48be-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.287 Attribute supplementalCredentials

This attribute specifies stored credentials for use in authenticating; the encrypted version of the user's password. This attribute is neither readable nor writable.

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For more information about usage, refer to [MS-SAMR] section 2.2.10.

```
cn: Supplemental-Credentials
ldapDisplayName: supplementalCredentials
attributeId: 1.2.840.113556.1.4.125
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a3f-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.288 Attribute supportedApplicationContext

This attribute specifies the object identifier(s) of application context(s) that an OSI application supports.

```
cn: Supported-Application-Context
ldapDisplayName: supportedApplicationContext
attributeId: 2.5.4.30
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 1677588f-47f3-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
mapiID: 33085
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.289 Attribute syncAttributes

This attribute specifies information on the sync objects.

```
cn: Sync-Attributes
ldapDisplayName: syncAttributes
attributeId: 1.2.840.113556.1.4.666
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 037651e4-441d-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.290 Attribute syncMembership

This attribute specifies a list of members contained in a SAM built-in group for synchronization.

```
cn: Sync-Membership
ldapDisplayName: syncMembership
attributeId: 1.2.840.113556.1.4.665
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 037651e3-441d-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
linkID: 78
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.291 Attribute syncWithObject

This attribute specifies the distinguished name of the object being synchronized for the SAM built-in group/local policy synchronization.

```
cn: Sync-With-Object
ldapDisplayName: syncWithObject
attributeId: 1.2.840.113556.1.4.664
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 037651e2-441d-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.292 Attribute syncWithSID

This attribute specifies the SAM built-in group object/local policy synchronization; this is the local group to which an object corresponds.

```
cn: Sync-With-SID
ldapDisplayName: syncWithSID
attributeId: 1.2.840.113556.1.4.667
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 037651e5-441d-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.293 Attribute systemAuxiliaryClass

This attribute specifies the governsIds of some of the Auxiliary classes that are linked to this class. These classes contain attributes that are required for system operation. This attribute is optional. It can be modified only by the Active Directory system [MS-ADOD]. See [MS-ADTS] section 3.1.1.3.1.1.5 for more information.

```
cn: System-Auxiliary-Class
ldapDisplayName: systemAuxiliaryClass
attributeId: 1.2.840.113556.1.4.198
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf967a43-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.294 Attribute systemFlags

This attribute specifies an integer value that contains flags that define additional properties of the class. See [MS-ADTS] for more information. This attribute is optional.

The systemFlags attribute contains bitwise flags. The values relevant to the schema objects are the following (further defined in [MS-ADTS] section 2.2.10):

- FLAG_ATTR_NOT_REPLICATED: This attribute is non-replicated.
- FLAG_ATTR_REQ_PARTIAL_SET_MEMBER: If set, this attribute is a member of partial attribute set (PAS) regardless of the value of attribute isMemberofPartialAttributeSet.
- FLAG_ATTR_IS_CONSTRUCTED: This attribute is a constructed attribute.
- FLAG_ATTR_IS_OPERATIONAL: This attribute is an operational attribute, as defined in [RFC2251] section 3.2.1.
- FLAG_SCHEMA_BASE_OBJECT: This attribute is a Category 1 schema attribute.
- FLAG_ATTR_IS_RDN: This attribute can be used as an RDN attribute of a class.

This attribute is defined as follows:

```
cn: System-Flags
ldapDisplayName: systemFlags
attributeId: 1.2.840.113556.1.4.375
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: e0fa1e62-9b45-11d0-afdd-00c04fd930c9
```


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```
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.295 Attribute systemMayContain

This attribute specifies the list of optional attributes for a class. The list of attributes can only be modified by the Active Directory system [MS-ADOD].

```
cn: System-May-Contain
ldapDisplayName: systemMayContain
attributeId: 1.2.840.113556.1.4.196
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf967a44-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.296 Attribute systemMustContain

This attribute specifies the attributeIds of some of the mandatory attributes of this class. It contains attributes required for system operation. This attribute is optional and can be modified only by the Active Directory system [MS-ADOD].

```
cn: System-Must-Contain
ldapDisplayName: systemMustContain
attributeId: 1.2.840.113556.1.4.197
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf967a45-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.297 Attribute systemOnly

This attribute specifies a Boolean value that specifies whether only Active Directory can modify the class. System-Only classes can be created or deleted only by the directory system agent.

```
cn: System-Only
ldapDisplayName: systemOnly
attributeId: 1.2.840.113556.1.4.170
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: bf967a46-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.298 Attribute systemPossSuperiors

This attribute specifies the governsIds of some of the classes that can be parents of this class within an NC tree. It describes relationships that are required for system operation. This attribute is optional and can be modified only by the Active Directory system [MS-ADOD]. See [MS-ADTS] for more information.

```
cn: System-Poss-Superiors
ldapDisplayName: systemPossSuperiors
attributeId: 1.2.840.113556.1.4.195
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: FALSE
schemaIdGuid: bf967a47-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.299 Attribute telephoneNumber

This attribute specifies the primary telephone number.

```
cn: Telephone-Number
ldapDisplayName: telephoneNumber
attributeId: 2.5.4.20
```


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```
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a49-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 64
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14856
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.300 Attribute teletexTerminalIdentifier

This attribute specifies the Teletex terminal identifier (and optionally, parameters) for a teletex terminal associated with an object.

```
cn: Teletex-Terminal-Identifier
ldapDisplayName: teletexTerminalIdentifier
attributeId: 2.5.4.22
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a4a-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 33091
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.301 Attribute telexNumber

This attribute specifies a list of alternate telex numbers.

```
cn: Telex-Number
ldapDisplayName: telexNumber
attributeId: 2.5.4.21
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a4b-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 32
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14892
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.302 Attribute templateRoots

This attribute specifies an attribute used on the Exchange Server configuration container to indicate where the template containers are stored. This information is used by the Active Directory MAPI provider.

```
cn: Template-Roots
ldapDisplayName: templateRoots
attributeId: 1.2.840.113556.1.4.1346
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: ed9de9a0-7041-11d2-9905-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.303 Attribute templateRoots2

This attribute specifies an attribute used on the Exchange Server configuration container to indicate where the template containers are stored. This information is used by the Active Directory MAPI provider. Similar to templateRoots, it differs by being a linked attribute.

```
cn: Template-Roots2
ldapDisplayName: templateRoots2
attributeId: 1.2.840.113556.1.4.2048
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
linkId: 2126
schemaIdGuid: b1cba91a-0682-4362-a659-153e201ef069
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.304 Attribute terminalServer

This attribute specifies opaque data used by Windows NT Terminal Server.

```
cn: Terminal-Server
ldapDisplayName: terminalServer
```


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```
attributeId: 1.2.840.113556.1.4.885
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 6db69a1c-9422-11d1-aebd-0000f80367c1
systemOnly: FALSE
searchFlags: fATTINDEX
rangeUpper: 20480
attributeSecurityGuid: 5805bc62-bdc9-4428-a5e2-856a0f4c185e
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeUpper is not defined.

2.305 Attribute textEncodedORAddress

This attribute is used to support X.400 [X400] addresses in a text format.

```
cn: Text-Encoded-OR-Address
ldapDisplayName: textEncodedORAddress
attributeId: 0.9.2342.19200300.100.1.2
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: a8df7489-c5ea-11d1-bbcb-0080c76670c0
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 1024
mapiID: 35969
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.306 Attribute thumbnailLogo

This attribute specifies a BLOB containing a logo for this object.

```
cn: Logo
ldapDisplayName: thumbnailLogo
attributeId: 2.16.840.1.113730.3.1.36
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf9679a9-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.307 Attribute thumbnailPhoto

This attribute specifies a picture.

```
cn: Picture
ldapDisplayName: thumbnailPhoto
attributeId: 2.16.840.1.113730.3.1.35
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 8d3bca50-1d7e-11d0-a081-00aa006c33ed
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 102400
mapiId: 35998
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.308 Attribute timeRefresh

This attribute specifies the interval during which a resource record that is contained in an Active Directory integrated zone has to be refreshed for the DNS server. The default interval is seven days.

```
cn: Time-Refresh
ldapDisplayName: timeRefresh
attributeId: 1.2.840.113556.1.4.503
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: ddac0cf1-af8f-11d0-afeb-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.309 Attribute timeVolChange

This attribute specifies the last time that a file in the remote storage volume was changed.

```
cn: Time-Vol-Change
ldapDisplayName: timeVolChange
attributeId: 1.2.840.113556.1.4.502
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: ddac0cf0-af8f-11d0-afeb-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.310 Attribute title

This attribute specifies the user's job title. This property is commonly used to indicate the formal job title, such as Senior Programmer, rather than occupational class, such as programmer. It is not typically used for suffix titles such as Esq. or DDS.

```
cn: Title
ldapDisplayName: title
attributeId: 2.5.4.12
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a55-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 128
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
mapiID: 14871
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.311 Attribute tokenGroups

This attribute specifies a computed attribute that contains the list of SIDs due to a transitive group membership expansion operation on a given user or computer. Token groups cannot be retrieved if no global catalog is present to retrieve the transitive reverse memberships.

```
cn: Token-Groups
ldapDisplayName: tokenGroups
attributeId: 1.2.840.113556.1.4.1301
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: b7c69e6d-2cc7-11d2-854e-00a0c983f608
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.312 Attribute tokenGroupsGlobalAndUniversal

This attribute specifies the token groups for Exchange Server.

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```
cn: Token-Groups-Global-And-Universal
ldapDisplayName: tokenGroupsGlobalAndUniversal
attributeId: 1.2.840.113556.1.4.1418
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 46a9b11d-60ae-405a-b7e8-ff8a58d456d2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG SCHEMA BASE OBJECT | FLAG ATTR IS CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.313 Attribute tokenGroupsNoGCAcceptable

This attribute specifies the list of SIDs due to a transitive group membership expansion operation on a given user or computer. Token groups cannot be retrieved if a global catalog is not present to retrieve the transitive reverse memberships.

```
cn: Token-Groups-No-GC-Acceptable
ldapDisplayName: tokenGroupsNoGCAcceptable
attributeId: 1.2.840.113556.1.4.1303
attributeSyntax: 2.5.5.17
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 040fc392-33df-11d2-98b2-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 037088f8-0ae1-11d2-b422-00a0c968f939
systemFlags: FLAG_SCHEMA_BASE_OBJECT | FLAG_ATTR_IS_CONSTRUCTED |
 FLAG_DOMAIN_DISALLOW_RENAME
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.314 Attribute tombstoneLifetime

If the Recycle Bin optional feature is not enabled, this attribute specifies the number of days before a deleted object is removed from the directory services. If the Recycle Bin optional feature is enabled, this attribute specifies the number of days before a recycled object is removed from the directory services. For more information, refer to [MS-ADTS] section 3.1.1.1.15 and [MS-DRSR].

```
cn: Tombstone-Lifetime
ldapDisplayName: tombstoneLifetime
attributeId: 1.2.840.113556.1.2.54
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 16c3a860-1273-11d0-a060-00aa006c33ed
```


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```
systemOnly: FALSE
searchFlags: 0
mapiID: 33093
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.315 Attribute transportAddressAttribute

This attribute specifies the name of the address type for the transport.

```
cn: Transport-Address-Attribute
ldapDisplayName: transportAddressAttribute
attributeId: 1.2.840.113556.1.4.895
attributeSyntax: 2.5.5.2
omSyntax: 6
isSingleValued: TRUE
schemaIdGuid: c1dc867c-a261-11d1-b606-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.316 Attribute transportDLLName

This attribute specifies the name of the DLL that will manage a transport.

```
cn: Transport-DLL-Name
ldapDisplayName: transportDLLName
attributeId: 1.2.840.113556.1.4.789
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 26d97372-6070-11d1-a9c6-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 1024
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.317 Attribute transportType

This attribute specifies the distinguished name for a type of transport being used to connect sites together. This value can point to an IP or Simple Mail Transfer Protocol (SMTP) transport.

```
cn: Transport-Type
ldapDisplayName: transportType
attributeId: 1.2.840.113556.1.4.791
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: 26d97374-6070-11d1-a9c6-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.318 Attribute treatAsLeaf

This attribute defines a flag for display specifiers (see the displaySpecifier class in [MS-ADSC]). Display specifiers that have this attribute set to True force the related class to be displayed as a leaf class even if it has children.

```
cn: Treat-As-Leaf
ldapDisplayName: treatAsLeaf
attributeId: 1.2.840.113556.1.4.806
attributeSyntax: 2.5.5.8
omSyntax: 1
isSingleValued: TRUE
schemaIdGuid: 8fd044e3-771f-11d1-aeae-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.319 Attribute treeName

This attribute specifies the fully qualified domain name (FQDN) (2) ([MS-ADTS] section 1.1) of the domain at the root of a tree.

```
cn: Tree-Name
ldapDisplayName: treeName
attributeId: 1.2.840.113556.1.4.660
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 28630ebd-41d5-11d1-a9c1-0000f80367c1
systemOnly: TRUE
searchFlags: 0
```


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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.320 Attribute trustAttributes

This attribute specifies the trust attributes for a trusted domain. Possible attribute values are as follows: TRUST_ATTRIBUTE_NON_TRANSITIVE Disable transitivity. TRUST_ATTRIBUTE_TREE_PARENT Trust is set to the organization tree parent. TRUST_ATTRIBUTE_TREE_ROOT Trust set to another tree root in the forest. TRUST_ATTRIBUTE_UPLEVEL_ONLY Trusted link valid only for up-level client. For more information, refer to [MS-ADTS] section 6.1.6.7.9.

```
cn: Trust-Attributes
ldapDisplayName: trustAttributes
attributeId: 1.2.840.113556.1.4.470
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 80a67e5a-9f22-11d0-afdd-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.321 Attribute trustAuthIncoming

This attribute specifies authentication information for the incoming portion of a trust. For more information, refer to [MS-ADTS] sections 6.1.6.7.10 and 6.1.6.9.1.

```
cn: Trust-Auth-Incoming
ldapDisplayName: trustAuthIncoming
attributeId: 1.2.840.113556.1.4.129
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a59-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.322 Attribute trustAuthOutgoing

This attribute specifies authentication information for the outgoing portion of a trust. For more information, refer to [MS-ADTS] sections 6.1.6.7.11 and 6.1.6.9.1.

```
cn: Trust-Auth-Outgoing
ldapDisplayName: trustAuthOutgoing
attributeId: 1.2.840.113556.1.4.135
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a5f-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.323 Attribute trustDirection

This attribute specifies the direction of a trust. For more information refer to [MS-ADTS] section 6.1.6.7.12.

```
cn: Trust-Direction
ldapDisplayName: trustDirection
attributeId: 1.2.840.113556.1.4.132
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a5c-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.324 Attribute trustParent

This attribute specifies the distinguished name of a related Cross-Ref. See [MS-ADTS] section 6.1.1.2.1.1.4.

```
cn: Trust-Parent
```


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```
ldapDisplayName: trustParent
attributeId: 1.2.840.113556.1.4.471
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: TRUE
schemaIdGuid: b000ea7a-a086-11d0-afdd-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.325 Attribute trustPartner

This attribute specifies the name of the domain with which a trust exists. For more information refer to [MS-ADTS] section 6.1.6.7.13.

```
cn: Trust-Partner
ldapDisplayName: trustPartner
attributeId: 1.2.840.113556.1.4.133
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a5d-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 1
rangeUpper: 1024
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.326 Attribute trustPosixOffset

This attribute specifies the Portable Operating System Interface (POSIX) offset for the trusted domain.

```
cn: Trust-Posix-Offset
ldapDisplayName: trustPosixOffset
attributeId: 1.2.840.113556.1.4.134
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a5e-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```


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```
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.327 Attribute trustType

This attribute specifies the type of trust, for example, NT or MIT.

```
cn: Trust-Type
ldapDisplayName: trustType
attributeId: 1.2.840.113556.1.4.136
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a60-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute isMemberOfPartialAttributeSet is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.328 Attribute uASCompat

This attribute specifies whether the security account manager will enforce data sizes to make Active Directory compatible with the LAN Manager User Account System (UAS). If this value is 0, no limits are enforced. If this value is 1, the following limits are enforced.

Value	Length
Password	0 to 14 characters
Account Name	0 to 20 characters
Domain Name	0 to 15 characters
Computer Name	0 to 15 characters
Comments	0 to 48 characters
Home Directory	0 to 256 characters
Script Path	0 to 256 characters
Time Units Per Week	168 bits (21 bytes)

```
cn: UAS-Compat
ldapDisplayName: uASCompat
```


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```
attributeId: 1.2.840.113556.1.4.155
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a61-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: b8119fd0-04f6-4762-ab7a-4986c76b3f9a
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.329 Attribute uid

This attribute specifies a user ID.

```
cn: uid
ldapDisplayName: uid
attributeId: 0.9.2342.19200300.100.1.1
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 0bb0fca0-1e89-429f-901a-1413894d9f59
systemOnly: FALSE
searchFlags: fPRESERVEONDELETE
attributeSecurityGuid: 59ba2f42-79a2-11d0-9020-00c04fc2d3cf
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.330 Attribute uidNumber

This attribute specifies an integer that uniquely identifies a user in an administrative domain, as specified in [RFC2307].

```
cn: UidNumber
ldapDisplayName: uidNumber
attributeId: 1.3.6.1.1.1.1.0
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 850fcc8f-9c6b-47e1-b671-7c654be4d5b3
systemOnly: FALSE
searchFlags: fATTINDEX
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.331 Attribute uNCName

This attribute specifies the universal naming convention name for shared volumes and printers.

```
cn: UNC-Name
ldapDisplayName: uNCName
attributeId: 1.2.840.113556.1.4.137
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a64-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fATTINDEX
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.332 Attribute unicodePwd

This attribute specifies the password of the user in Windows NT one-way format (OWF). Windows 2000 uses the Windows NT OWF. This property is used only by the operating system. Note that the clear password cannot be derived back from the OWF form of the password. For more information, refer to [MS-ADTS] section 3.1.1.3.1.5.1 and [MS-SAMR] section 3.1.1.8.7.

```
cn: Unicode-Pwd
ldapDisplayName: unicodePwd
attributeId: 1.2.840.113556.1.4.90
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf9679e1-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.333 Attribute uniqueIdentifier

This attribute specifies a "unique identifier" for an object represented in the directory. For more information refer to [MS-ADTS].

```
cn: uniqueIdentifier
ldapDisplayName: uniqueIdentifier
attributeId: 0.9.2342.19200300.100.1.44
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: ba0184c7-38c5-4bed-a526-75421470580c
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
```


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```
rangeUpper: 256
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.334 Attribute uniqueMember

This attribute specifies the distinguished name for the member of a group (see the groupOfUniqueNames class [MS-ADSC]).

```
cn: uniqueMember
ldapDisplayName: uniqueMember
attributeId: 2.5.4.50
attributeSyntax: 2.5.5.1
omSyntax: 127
omObjectClass: 1.3.12.2.1011.28.0.714
isSingleValued: FALSE
schemaIdGuid: 8f888726-f80a-44d7-b1ee-cb9df21392c8
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.335 Attribute unixHomeDirectory

This attribute specifies the absolute path to the home directory [RFC2307].

```
cn: UnixHomeDirectory
ldapDisplayName: unixHomeDirectory
attributeId: 1.3.6.1.1.1.1.3
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: TRUE
schemaIdGuid: bc2dba12-000f-464d-bf1d-0808465d8843
systemOnly: FALSE
searchFlags: 0
rangeUpper: 2048
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.336 Attribute unixUserPassword

This attribute specifies a userPassword compatible with UNIX systems.

```
cn: UnixUserPassword
ldapDisplayName: unixUserPassword
attributeId: 1.2.840.113556.1.4.1910
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 612cb747-c0e8-4f92-9221-fdd5f15b550d
systemOnly: FALSE
searchFlags: fCONFIDENTIAL
```


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```
rangeLower: 1
rangeUpper: 128
```

Version-Specific Behavior: Implemented on Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.337 Attribute unstructuredAddress

This attribute specifies the IP address of the router. For example, 100.11.22.33. PKCS #9.

```
cn: unstructuredAddress
ldapDisplayName: unstructuredAddress
attributeId: 1.2.840.113549.1.9.8
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 50950839-cc4c-4491-863a-fcf942d684b7
systemOnly: FALSE
searchFlags: 0
rangeUpper: 256
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.338 Attribute unstructuredName

This attribute specifies the fully qualified domain name (FQDN) (1) ([MS-ADTS] section 1.1) of the router, for example, router1.microsoft.com. PKCS #9.

```
cn: unstructuredName
ldapDisplayName: unstructuredName
attributeId: 1.2.840.113549.1.9.2
attributeSyntax: 2.5.5.5
omSyntax: 22
isSingleValued: FALSE
schemaIdGuid: 9c8ef177-41cf-45c9-9673-7716c0c8901b
systemOnly: FALSE
searchFlags: 0
rangeUpper: 256
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.339 Attribute upgradeProductCode

This attribute contains the product code of other packages, such as applications, that can be upgraded by this package, or that can upgrade this package.

```
cn: Upgrade-Product-Code
ldapDisplayName: upgradeProductCode
attributeId: 1.2.840.113556.1.4.813
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: d9e18312-8939-11d1-aebc-0000f80367c1
```


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```
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.340 Attribute uPNSuffixes

This attribute specifies the list of User-Principal-Name suffixes for a forest.

```
cn: UPN-Suffixes
ldapDisplayName: uPNSuffixes
attributeId: 1.2.840.113556.1.4.890
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 032160bf-9824-11d1-aec0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.341 Attribute url

This attribute specifies a list of alternate webpages.

```
cn: WWW-Page-Other
ldapDisplayName: url
attributeId: 1.2.840.113556.1.4.749
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 9a9a0221-4a5b-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: e45795b3-9455-11d1-aebd-0000f80367c1
mapiID: 33141
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.342 Attribute userAccountControl

This attribute specifies flags that control the behavior of the user account.

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```
cn: User-Account-Control
ldapDisplayName: userAccountControl
attributeId: 1.2.840.113556.1.4.8
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a68-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY| fPRESERVEONDELETE | fATTINDEX
attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.343 Attribute userCert

This attribute specifies Nortel v1 or DMS certificates.

```
cn: User-Cert
ldapDisplayName: userCert
attributeId: 1.2.840.113556.1.4.645
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: bf967a69-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14882
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.344 Attribute userCertificate

This attribute specifies the DER-encoded X509v3 certificates issued to the user ([RFC3280]). Note that this property contains the public key certificates issued to this user by Microsoft Certificate Service.

```
cn: X509-Cert
ldapDisplayName: userCertificate
attributeId: 2.5.4.36
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a7f-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeUpper: 32768
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
```


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```
mapiID: 35946
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeUpper is not defined.

2.345 Attribute userClass

This attribute specifies a category of computer user.

```
cn: userClass
ldapDisplayName: userClass
attributeId: 0.9.2342.19200300.100.1.8
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 11732a8a-e14d-4cc5-b92f-d93f51c6d8e4
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 256
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.346 Attribute userParameters

This attribute specifies parameters of the user and is set aside for use by applications. Terminal servers use this attribute to store session configuration data for the user. For more information, see [MS-TSTS]. Microsoft Callback Control Protocol [MS-CBCP] also uses this attribute to retrieve the callback configuration options for the user.

```
cn: User-Parameters
ldapDisplayName: userParameters
attributeId: 1.2.840.113556.1.4.138
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a6d-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 32767
attributeSecurityGuid: 4c164200-20c0-11d0-a768-00aa006e0529
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.347 Attribute userPassword

This attribute specifies the user's password in UTF-8 format. This is a write-only attribute.

```
cn: User-Password
ldapDisplayName: userPassword
attributeId: 2.5.4.35
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a6e-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 128
mapiID: 33107
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.348 Attribute userPKCS12

This attribute specifies the PKCS #12 PFX Protocol Data Unit (PDU) for exchange of personal identity information.

```
cn: userPKCS12
ldapDisplayName: userPKCS12
attributeId: 2.16.840.1.113730.3.1.216
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: 23998ab5-70f8-4007-a4c1-a84a38311f9a
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.349 Attribute userPrincipalName

This attribute specifies the user principal name (UPN) that is an Internet-style logon name for a user, as specified in the Internet standard [RFC822]. The UPN is shorter than the distinguished name and easier to remember. By convention, the UPN maps to the user email name. For more information about this attribute, see [MS-ADTS].

```
cn: User-Principal-Name
ldapDisplayName: userPrincipalName
attributeId: 1.2.840.113556.1.4.656
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 28630ebb-41d5-11d1-a9c1-0000f80367c1
systemOnly: FALSE
searchFlags: fATTINDEX
```


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```
rangeUpper: 1024
attributeSecurityGuid: e48d0154-bcf8-11d1-8702-00c04fb96050
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeUpper is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.350 Attribute userSharedFolder

This attribute specifies a UNC path to the user's shared documents folder. The path is a network UNC path of the form \\server\share\directory. This value can be a null string.

```
cn: User-Shared-Folder
ldapDisplayName: userSharedFolder
attributeId: 1.2.840.113556.1.4.751
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 9a9a021f-4a5b-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.351 Attribute userSharedFolderOther

This attribute specifies a UNC path to the user's additional shared documents folder. The path is a network UNC path of the form \\server\share\directory. This value can be a null string.

```
cn: User-Shared-Folder-Other
ldapDisplayName: userSharedFolderOther
attributeId: 1.2.840.113556.1.4.752
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 9a9a0220-4a5b-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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2.352 Attribute userSMIMECertificate

This attribute specifies a certificate distribution object or tagged certificates.

```
cn: User-SMIME-Certificate
ldapDisplayName: userSMIMECertificate
attributeId: 2.16.840.1.113730.3.140
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: e16a9db2-403c-11d1-a9c0-0000f80367c1
systemOnly: FALSE
searchFlags: 0
rangeUpper: 32768
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 14960
isMemberOfPartialAttributeSet: TRUE
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeUpper is not defined, and the following attributes are defined differently.

```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

2.353 Attribute userWorkstations

This attribute specifies the NetBIOS or fully qualified domain names (FQDNs) (1) ([MS-ADTS] section 1.1) of the computers running Windows NT Workstation operating system or Windows 2000 Professional operating system from which the user can log on. Each NetBIOS name is separated by a comma. The NetBIOS name of a computer is the saMAccountName property of a computer object. Multiple names are separated by commas.

```
cn: User-Workstations
ldapDisplayName: userWorkstations
attributeId: 1.2.840.113556.1.4.86
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf9679d7-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: fCOPY
rangeLower: 0
rangeUpper: 1024
attributeSecurityGuid: 5f202010-79a5-11d0-9020-00c04fc2d4cf
systemFlags: FLAG SCHEMA BASE OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute attributeSecurityGuid is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

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2.354 Attribute uSNChanged

This attribute specifies the Update Sequence Number (USN) value assigned by the local directory for the latest change, including creation. For more information, refer to [MS-DRSR].

```
cn: USN-Changed
ldapDisplayName: uSNChanged
attributeId: 1.2.840.113556.1.2.120
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a6f-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE | fATTINDEX
mapiID: 32809
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT |
 FLAG ATTR REQ PARTIAL SET MEMBER | FLAG ATTR NOT REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.355 Attribute uSNCreated

This attribute specifies the USN-Changed value assigned at object creation. For more information, refer to [MS-DRSR].

```
cn: USN-Created
ldapDisplayName: uSNCreated
attributeId: 1.2.840.113556.1.2.19
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a70-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: fPRESERVEONDELETE | fATTINDEX
mapiID: 33108
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.356 Attribute uSNDSALastObjRemoved

This attribute specifies the USN for the last system object that was removed from a server. For more information, refer to [MS-DRSR].

```
cn: USN-DSA-Last-Obj-Removed
ldapDisplayName: uSNDSALastObjRemoved
attributeId: 1.2.840.113556.1.2.267
```


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```
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a71-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 33109
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.357 Attribute USNIntersite

This attribute specifies the USN for inter-site replication. For more information, refer to [MS-DRSR].

```
cn: USN-Intersite
ldapDisplayName: USNIntersite
attributeId: 1.2.840.113556.1.2.469
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: a8df7498-c5ea-11d1-bbcb-0080c76670c0
systemOnly: FALSE
searchFlags: fATTINDEX
mapiID: 33146
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.358 Attribute uSNLastObjRem

This attribute specifies the USN for the last non–system object that was removed from a server. For more information, refer to [MS-DRSR].

```
cn: USN-Last-Obj-Rem
ldapDisplayName: uSNLastObjRem
attributeId: 1.2.840.113556.1.2.121
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: bf967a73-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 33110
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.359 Attribute uSNSource

This attribute specifies the value of the USN-Changed attribute of the object from the remote directory that replicated the change to the local server. For more information refer to [MS-DRSR].

```
cn: USN-Source
ldapDisplayName: uSNSource
attributeId: 1.2.840.113556.1.4.896
attributeSyntax: 2.5.5.16
omSyntax: 65
isSingleValued: TRUE
schemaIdGuid: 167758ad-47f3-11d1-a9c3-0000f80367c1
systemOnly: FALSE
searchFlags: 0
mapiID: 33111
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.360 Attribute validAccesses

This attribute specifies the type of access that is permitted with an extended right.

```
cn: Valid-Accesses
ldapDisplayName: validAccesses
attributeId: 1.2.840.113556.1.4.1356
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 4d2fa380-7f54-11d2-992a-0000f87a57d4
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.361 Attribute vendor

This attribute specifies the vendor for an application.

```
cn: Vendor
ldapDisplayName: vendor
attributeId: 1.2.840.113556.1.4.255
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: 281416df-1968-11d0-a28f-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
```


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```
rangeUpper: 512
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.362 Attribute versionNumber

This attribute specifies a general purpose version number.

```
cn: Version-Number
ldapDisplayName: versionNumber
attributeId: 1.2.840.113556.1.4.141
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: bf967a76-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.363 Attribute versionNumberHi

This attribute specifies a general purpose major version number.

```
cn: Version-Number-Hi
ldapDisplayName: versionNumberHi
attributeId: 1.2.840.113556.1.4.328
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 7d6c0e9a-7e20-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.364 Attribute versionNumberLo

This attribute specifies a general purpose minor version number.

```
cn: Version-Number-Lo
ldapDisplayName: versionNumberLo
attributeId: 1.2.840.113556.1.4.329
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 7d6c0e9b-7e20-11d0-afd6-00c04fd930c9
```


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```
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.365 Attribute volTableGUID

This attribute specifies a unique identifier for a Link-Track-Volume table entry.

```
cn: Vol-Table-GUID
ldapDisplayName: volTableGUID
attributeId: 1.2.840.113556.1.4.336
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 1f0075fd-7e40-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
rangeLower: 0
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.366 Attribute volTableIdxGUID

This attribute specifies the index identifier for a Link-Track-Volume table entry.

```
cn: Vol-Table-Idx-GUID
ldapDisplayName: volTableIdxGUID
attributeId: 1.2.840.113556.1.4.334
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: TRUE
schemaIdGuid: 1f0075fb-7e40-11d0-afd6-00c04fd930c9
systemOnly: FALSE
searchFlags: fATTINDEX
rangeLower: 0
rangeUpper: 16
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.367 Attribute volumeCount

This attribute specifies the tracked volume quota for a given computer.

```
cn: Volume-Count
ldapDisplayName: volumeCount
attributeId: 1.2.840.113556.1.4.507
```


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```
attributeSyntax: 2.5.5.9
omSyntax: 2
isSingleValued: TRUE
schemaIdGuid: 34aaa217-b699-11d0-afee-0000f80367c1
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.368 Attribute wbemPath

This attribute specifies references to objects in other Active Directory Service Interface (ADSI) namespaces.

```
cn: Wbem-Path
ldapDisplayName: wbemPath
attributeId: 1.2.840.113556.1.4.301
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: FALSE
schemaIdGuid: 244b2970-5abd-11d0-afd2-00c04fd930c9
systemOnly: FALSE
searchFlags: 0
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.369 Attribute wellKnownObjects

This attribute specifies a list of well-known object containers by GUID and distinguished name. The well-known objects are system containers. This information is used to retrieve an object after it has been moved by using just the GUID and the domain name. Whenever the object is moved, the Active Directory system [MS-ADOD] will automatically update the distinguished name portion of the Well-Known-Objects values that referred to the object. For information on well-known objects, well-known GUIDs, and their symbolic names, see [MS-ADTS] section 6.1.1.4.

```
cn: Well-Known-Objects
ldapDisplayName: wellKnownObjects
attributeId: 1.2.840.113556.1.4.618
attributeSyntax: 2.5.5.7
omSyntax: 127
omObjectClass: 1.2.840.113556.1.1.1.11
isSingleValued: FALSE
schemaIdGuid: 05308983-7688-11d1-aded-00c04fd8d5cd
systemOnly: TRUE
searchFlags: 0
rangeLower: 16
rangeUpper: 16
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```


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Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, attribute rangeLower and rangeUpper is not defined.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.370 Attribute whenChanged

This attribute specifies the date when this object was last changed. This value is not replicated and exists in the global catalog. For more information refer to [MS-ADTS].

```
cn: When-Changed
ldapDisplayName: whenChanged
attributeId: 1.2.840.113556.1.2.3
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: bf967a77-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 12296
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER | FLAG_ATTR_NOT_REPLICATED
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.371 Attribute whenCreated

This attribute specifies the date and time when this object was created. This value is replicated and is in the global catalog. For more information refer to [MS-ADTS].

```
cn: When-Created
ldapDisplayName: whenCreated
attributeId: 1.2.840.113556.1.2.2
attributeSyntax: 2.5.5.11
omSyntax: 24
isSingleValued: TRUE
schemaIdGuid: bf967a78-0de6-11d0-a285-00aa003049e2
systemOnly: TRUE
searchFlags: 0
mapiID: 12295
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG SCHEMA BASE OBJECT |
 FLAG_ATTR_REQ_PARTIAL_SET_MEMBER
schemaFlagsEx: FLAG_ATTR_IS_CRITICAL
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

In Windows 2000 Server, the following attributes are defined differently.

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```
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

The schemaFlagsEx attribute was added to this attribute definition in Windows Server 2008.

2.372 Attribute winsockAddresses

This attribute specifies a Winsock service address.

```
cn: Winsock-Addresses
ldapDisplayName: winsockAddresses
attributeId: 1.2.840.113556.1.4.142
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: bf967a79-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
isMemberOfPartialAttributeSet: TRUE
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.373 Attribute wWWHomePage

This attribute specifies the primary web page.

```
cn: WWW-Home-Page
ldapDisplayName: wWWHomePage
attributeId: 1.2.840.113556.1.2.464
attributeSyntax: 2.5.5.12
omSyntax: 64
isSingleValued: TRUE
schemaIdGuid: bf967a7a-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
searchFlags: 0
rangeLower: 1
rangeUpper: 2048
attributeSecurityGuid: e45795b3-9455-11d1-aebd-0000f80367c1
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.374 Attribute x121Address

This attribute specifies the X.121 address for an object, as specified in [X121].

```
cn: X121-Address
ldapDisplayName: x121Address
attributeId: 2.5.4.24
attributeSyntax: 2.5.5.6
omSyntax: 18
isSingleValued: FALSE
schemaIdGuid: bf967a7b-0de6-11d0-a285-00aa003049e2
systemOnly: FALSE
```


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```
searchFlags: 0
rangeLower: 1
rangeUpper: 15
attributeSecurityGuid: 77b5b886-944a-11d1-aebd-0000f80367c1
mapiID: 33112
systemFlags: FLAG_SCHEMA_BASE_OBJECT
```

Version-Specific Behavior: Implemented on Windows 2000 Server, Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

2.375 Attribute x500uniqueIdentifier

This attribute specifies when a distinguished name has been reused. This is a different attribute type from both the "uid" and "uniqueIdentifier" types.

```
cn: x500uniqueIdentifier
ldapDisplayName: x500uniqueIdentifier
attributeId: 2.5.4.45
attributeSyntax: 2.5.5.10
omSyntax: 4
isSingleValued: FALSE
schemaIdGuid: d07da11f-8a3d-42b6-b0aa-76c962be719a
systemOnly: FALSE
searchFlags: 0
```

Version-Specific Behavior: Implemented on Windows Server 2003, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, and Windows Server 2016.

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3 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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